PEPFAR REAUTHORIZATION: FROM EMERGENCY TO SUSTAINABILITY

HEARING

BEFORE THE

COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

SEPTEMBER 25, 2007

Serial No. 110–116

Printed for the use of the Committee on Foreign Affairs

Available via the World Wide Web: http://www.foreignaffairs.house.gov/

U.S. GOVERNMENT PRINTING OFFICE
37–971PDF WASHINGTON : 2007

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON FOREIGN AFFAIRS

TOM LANTOS, California, *Chairman*

HOWARD L. BERMAN, California
GARY L. ACKERMAN, New York
ENI F.H. FALEOMAVAEGA, American Samoa
DONALD M. PAYNE, New Jersey
BRAD SHERMAN, California
ROBERT WEXLER, Florida
ELIOT L. ENGEL, New York
BILL DELAHUNT, Massachusetts
GREGORY W. MEEKS, New York
DIANE E. WATSON, California
ADAM SMITH, Washington
RUSS CARNAHAN, Missouri
JOHN S. TANNER, Tennessee
GENE GREEN, Texas
LYNN C. WOOLSEY, California
SHEILA JACKSON LEE, Texas
RUBÉN HINOJOSA, Texas
JOSEPH CROWLEY, New York
DAVID WU, Oregon
BRAD MILLER, North Carolina
LINDA T. SÁNCHEZ, California
DAVID SCOTT, Georgia
JIM COSTA, California
ALBIO SIRES, New Jersey
GABRIELLE GIFFORDS, Arizona
RON KLEIN, Florida

ILEANA ROS-LEHTINEN, Florida
CHRISTOPHER H. SMITH, New Jersey
DAN BURTON, Indiana
ELTON GALLEGLY, California
DANA ROHRABACHER, California
DONALD A. MANZULLO, Illinois
EDWARD R. ROYCE, California
STEVE CHABOT, Ohio
THOMAS G. TANCREDO, Colorado
RON PAUL, Texas
JEFF FLAKE, Arizona
JO ANN DAVIS, Virginia
MIKE PENCE, Indiana
JOE WILSON, South Carolina
JOHN BOOZMAN, Arkansas
J. GRESHAM BARRETT, South Carolina
CONNIE MACK, Florida
JEFF FORTENBERRY, Nebraska
MICHAEL T. MCCAUL, Texas
TED POE, Texas
BOB INGLIS, South Carolina
LUIS G. FORTUÑO, Puerto Rico
GUS BILIRAKIS, Florida

ROBERT R. KING, *Staff Director*
YLEEM POBLETE, *Republican Staff Director*
PEARL ALICE MARSH, *Senior Professional Staff Member*
GENELL BROWN, *Full Committee Hearing Coordinator*

CONTENTS

PEPFAR REAUTHORIZATION: FROM EMERGENCY TO SUSTAINABILITY

TUESDAY, SEPTEMBER 25, 2007

HOUSE OF REPRESENTATIVES,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The committee met, pursuant to notice, at 10 o'clock a.m. in room 2172, Rayburn House Office Building, Hon. Tom Lantos, (chairman of the committee) presiding.

Chairman LANTOS. This meeting of the Committee on Foreign Affairs will come to order.

Four short years ago, if you were to walk into the hallway of a hospital in Zambia, it would have been clogged with HIV/AIDS patients waiting to die. The lifesaving drugs, which have brought so much hope to those infected with the virus in wealthy nations, simply were not available to Zambia's poor, or to those infected with HIV/AIDS throughout Africa.

Our committee acted decisively to rectify this fundamental injustice. On a bipartisan basis, we rapidly approved the U.S. Leadership Against HIV/AIDS Act. This bill authorized $15 billion—I repeat, $15 billion—over 5 years, of which 55 percent was earmarked for treatment.

Four years later, as we consider legislation to reauthorize this critically important law, the hallways of hospitals and clinics in Zambia and throughout Africa are once again crowded; but not with patients at the door of death. They are filled with hundreds of thousands of men, women, and children receiving lifesaving HIV/AIDS treatment.

The legislation produced by our committee has yielded dramatic results, particularly in the arena of treatment. But the task for the next 5 years is not only to solidify these gains, but to reorient the program so that our efforts to combat HIV/AIDS will be sustainable for generations to come.

To be sustainable, our HIV/AIDS program must dramatically strengthen the healthcare delivery systems in nations ravaged by the deadly virus. To be sustainable, our program must find new and creative ways to delivery the ABC prevention message. To be sustainable, our program and the programs under the Global Fund must work with NGOs and governments to battle HIV/AIDS in a cost-efficient, transparent, and effective manner.

So as our committee embarks on rewriting the U.S. Leadership Against HIV/AIDS, those will be our marching orders. We will increase dramatically the funding for this vitally important program, with a new-found emphasis upon sustainability at its core.

Working in the same bipartisan manner in which the original act was created, we will find new efforts to encourage doctors and nurses to stay in Africa and other HIV/AIDS-ravaged nations, where they are clearly most needed. We will launch new programs to train hundreds of thousands of physicians, nurses, community health workers, and to find gainful employment for the millions of teenagers across the African Continent who were orphaned by AIDS while they were very young.

And we will create new efforts to bring lifesaving medicine to rural areas. With just a bit of modern technology, a village health worker can immediately connect a patient with a doctor located in a major city, and use a bicycle to bring life-sustaining medicine to the poor in the countryside.

Working in a bipartisan manner, we will increase the sustainability and effectiveness of our prevention efforts. With an HIV prevalence rate of 17 percent in Zambia, 18 percent in South Africa, and 24 percent in Botswana, we clearly have our work cut out for us.

But if we stick to the ABC prevention message and find new and creative ways to reach the most vulnerable populations, these absolutely staggering rates can and will come down.

To maintain the bipartisan consensus behind this initiative, we must recognize that each element of the ABC approach has value. For kids in elementary school, abstinence education is right on target, particularly when it empowers children to make correct choices in all aspects of their lives.

For dating and married couples, awareness of one's HIV status and faithfulness are vital to stemming increases in infection rates.

And for couples who don't know whether they have HIV, or where one partner has been tested and found free of the virus, condoms are essential. Unlike the guidance issued by the Executive Branch, I do not believe that condoms are only for prostitutes and truck drivers.

Working together we can fine-tune our prevention programs, and literally save millions of lives. Working together we will guarantee nutrition with treatment, so that patients no longer stop medicines because they have nothing to eat. Working together we can revitalize Africa's healthcare system, and leave a real legacy for future generations.

Working together, we can dramatically boost funding for our global HIV/AIDS programs, and help to ensure that millions more kids don't lose their parents to this deadly scourge.

We have had some genuine success so far. But if we don't help to build in the target countries the capacity and the will to sustain this struggle for the long term, then all our good work may turn out to have been for naught.

It is my pleasure now to turn to my friend, the ranking Republican member of the committee, Ileana Ros-Lehtinen, for any remarks she may care to make.

Ms. ROS-LEHTINEN. Thank you so much, Mr. Chairman, for holding this hearing on this important issue.

When the committee last met in April to discuss the President's Emergency Plan for AIDS Relief (PEPFAR), attention was properly placed on what has been accomplished. Through PEPFAR, the

American people have helped provide compassionate care for some 4.5 million people impacted by HIV/AIDS, including 2 million orphans and vulnerable children.

We have supported the provisions of anti-retroviral treatment for nearly 1 million people with an estimated 50,000 new people gaining access to treatment each month. And we have made significant advances in preventing new infections from occurring, including by providing ARV for HIV mothers during over half a million pregnancies.

These accomplishments are a testament to the generosity of the American people, the bipartisan commitment of this body and the administration, and the tireless dedication of our implementing partners on the front lines of this pandemic.

But more and more people become infected each day. According to UNAIDS, an estimated 4.3 million new infections occurred in 2006 alone. Clearly, much more needs to be done.

In May the President announced his intention to seek authorization from Congress to commit an additional $30 billion to the PEPFAR initiative over the next 5 years. The President's demonstrated commitment to fighting the global scourge of HIV/AIDS through PEPFAR and the competence of the Global AIDS Coordinator, Ambassador Mark Dybul, has helped set a positive tone as Congress seeks to reauthorize the U.S. Leadership Against HIV/AIDS, Malaria, and Tuberculosis Act, which will expire this year.

But given the number of lives and the amount of money that are at stake, we cannot afford to make mistakes in this reauthorization. We must focus our efforts on what works, and move toward sustainable solutions.

During the reauthorization debate there will be much discussion about how to transition PEPFAR from an emergency program to a sustainable one. Some are advocating that PEPFAR take on additional challenges including placing greater emphasis on gender issues, deficits in healthcare systems, and the lack of food security for those with HIV/AIDS.

While there is a great deal of merit to some of these arguments, I urge caution, because if PEPFAR is directed to take on a universe of problems that plague the focus countries, we risk reducing a program that is, reducing it to a program that is a mile wide and an inch deep. We must remain focused on the central objectives of providing care and treatment to those impacted by HIV/AIDS while expanding efforts to prevent new infections from occurring.

Members will also hear arguments in favor of evidence-based decision making with regard to our prevention, care, treatment interventions. I could not agree more. I cannot imagine anyone making a rational argument for spending an additional $30 billion on a program that was anything less than effective.

Then there are those who call for both sustainability and evidence-based decision making in the same breath that they advocate for the removal of the abstinence earmark in the Leadership Act. Abstinence and fidelity programs are working, where the traditional focus on condom promotion that dominated the U.S. strategy for the last 17 years of the pandemic has failed.

Yet prior to the imposition of the earmark, the United States invested little, if anything, in the AB programs. If implementers had not been compelled to adjust their programs, I am not confident that they would have embraced the ABC approach, with a strong emphasis on the A and B, that has proven effective in countries like Uganda, Botswana, Kenya, and elsewhere.

And even now that a consensus has emerged that the AB programming is central to an effective prevention strategy, I am still not confident that it would be implemented if not for the earmark.

Dr. Norman Hearst, a respected leader in the field of HIV/AIDS treatment and prevention for the last 20 years, will testify to that today. Dr. Hearst was commissioned by UNAIDS to do a study on the impact of condom promotion in areas heavily impacted by HIV/AIDS. He will readily admit that he initially undertook the study with a bias toward condom promotion. However, his research revealed that the promotion of condoms, in the absence of strong abstinence and fidelity programs, actually led to increases in new infections.

When he reported this to UNAIDS, they refused to publish his work. Fortunately for us, his work has since been published and has become part of a growing consensus among HIV professionals that, while condoms play an important role in HIV/AIDS prevention, abstinence and fidelity programs are essential to successful and sustainable prevention efforts.

Mr. Chairman, I hope that members on both sides of the aisle will heed the advice of the advocacy groups and consider the evidence before making any decision to strike the AB earmark.

The PEPFAR program, Mr. Chairman, is a magnificent demonstration of the good that can be done when Democrats and Republicans work together to solve the most serious of problems.

I look forward to working with you, Mr. Chairman, and with our colleagues to ensure that the Leadership Act is reauthorized and that our PEPFAR program is as successful as possible.

Thank you for the time, Mr. Chairman.

Chairman LANTOS. Thank you very much. And before turning to my next colleague, let me just state for the record that I am about to manage the most important piece of legislation on the floor with regard to Iran. I would like to ask my friend from New Jersey to take the chair.

Mr. PAYNE [presiding]. Let me begin by commending the chairman, Mr. Lantos, for convening this very important hearing with representatives from the HIV/AIDS research and advocacy communities, and organizations that helped implement the President's Emergency Plan for HIV and AIDS Relief, or PEPFAR, as it is known.

Traveling through Africa, one of the programs that most people, whether they are in government, in the cities, or in the villages, know about is the PEPFAR program. And we believe that it has had a major impact in the war against HIV and AIDS. Of course, it is far from adequate.

In the 4 years since Congress passed the original legislation authorizing PEPFAR, the professionals from these organizations had proven to be a critical resource not only in helping carry out the program, but also as a resource to Congress, as we engage in our

oversight responsibilities. And they have been invaluable in terms of the feedback and analysis they have provided, as this committee writes legislation to reauthorize the initiative.

I will be calling on the expertise of the NGO community on October 9 at a hearing of the Subcommittee on Africa and Global Health, which is specifically focused on the issue of the integration of food and nutrition into treatment programs supported through PEPFAR. It is an area that we believe needs a lot more examination. We believe that there is a relationship between the success of the program and adequate nutrition and food.

I hope that our witnesses today will touch on that issue in their testimonies. In addition, I am interested in their analysis regarding PEPFAR's current prevention strategies, and how these strategies can be improved.

As we all know, for every one person we put on anti-retroviral treatment, five additional people become infected with HIV. We cannot treat our way out of this disease. Developing and improving prevention programs will be vital as the United States transforms its emergency response to a sustained commitment to fight the HIV/AIDS pandemic.

It is clear to me that while much has been accomplished in terms of fighting HIV/AIDS, much more remains to be done. Only 28 percent of Africans needing anti-retrovirals are receiving them. Shockingly, over 85 percent of African children who need ARVs are going without.

If we are to stop the spread of HIV/AIDS, we are going to have to redouble our efforts, both financially and programmatically. Again, I commend the witnesses for coming here, and I certainly look forward to your testimonies.

With that, I will yield to Mr. Smith, the ranking member on the Subcommittee on Africa and Global Health.

Mr. SMITH OF NEW JERSEY. Thank you very much, Mr. Chairman. I want to thank you and Congressman Lantos, the chairman of the full committee, for calling this timely hearing in anticipation of the reauthorization of the President's Emergency Plan for AIDS Relief.

In the short 4 years of its existence, PEPFAR, crafted so skillfully by Chairman Hyde, who was then chairman of the full committee and prime sponsor of the bill, along with Mr. Lantos, and many of us who had very strong concerns about this issue—I was very proud to have been a co-sponsor—has transformed the nature of this pandemic.

In 2003, HIV/AIDS was a ravaging death sentence that was destroying individuals, families, and entire communities with little or no relief in sight. Now, it is, to be sure, an ongoing and desperate crisis, but it is being restrained, and can be restrained further, and hopefully ended, if it is addressed through sufficient resources and appropriate evidence-based policies.

Although anti-retroviral treatment has been pivotal in slowing the tide of the pandemic, we cannot rely on ARVs as the centerpiece of a sustainable program. As we will hear during today's testimony, for every person who is placed on ARVs, there are six new infections. So, we must focus our efforts on learning what has worked up to now in reducing the prevalence rates of HIV/AIDS

and concentrate our resources on expanding those successful strategies.

Prior to PEPFAR and the implementation of the 33 percent prevention spending requirement on abstinence and be faithful programs, almost no one, USAID included, even considered devoting resources to these measures. I am told that some USAID personnel in the field even laughed at the idea of abstinence training when PEPFAR was first being implemented.

Most, if not all, of HIV/AIDS prevention programming consisted of condom marketing and distribution. Yet, as we will hear from our distinguished witness, Dr. Norman Hearst, and as Ileana Ros-Lehtinen noted a moment ago, the condom approach did not work in countries where the pandemic has spread among the general population which constitute a majority of the world's infections.

The PEPFAR comprehensive evidence-based approach adopted the successful ABC model that originated in Uganda, and the success of reducing HIV prevalence rates through sexual behavioral change is being replicated in other PEPFAR-focused countries.

This approach is showing other positive outcomes, as well. For example, a PEPFAR-funded program in Schibello Basic School in Zambia emphasizes abstinence as part of a holistic life-skills training program. Since the program was implemented 2 years ago, the number of pregnancies among the 520 schoolgirls, grades 5 to 9, has dropped from 13 in 2003 to 2004 to zero so far this year. School management also attributes the program with significantly enhancing academic performance.

I am deeply disturbed, Mr. Chairman, by the insinuations of some that sexual behavior change is not possible for Africans. Father Thomas Williams, in a May 17, 2007, article in the *National Review*, notes that he has spoken to numerous Africans who find the egregiously false Western supposition that they are going to do it anyway not only to be insulting, but racist. He notes that prejudice against Africans with no self-discipline or control over the sex drive simmers just beneath the surface of much anti-abstinence propaganda.

On the other hand, the question is appropriately raised as to why those who consider themselves experts are refusing to accept the evidence about the success of behavioral change; and if they do accept the evidence, why they are opposed to the AB spending requirement.

With the spending requirement, the U.S. is the only major international donor providing substantial support to this proven prevention strategy. Without it, we are faced with the specter of returning to a failed condom-centric approach, and to the devastating loss of human life of the pre-PEPFAR era.

Finally, Mr. Chairman, I am deeply concerned, and, quite frankly, outraged, that some pro-abortion NGOs are attempting to hijack PEPFAR and other noble initiatives to promote the slaughter of unborn children in Africa and around the world. Pro-abortion groups are shamelessly using HIV/AIDS funding as the Trojan Horse to facilitate policies that reduce unborn children to expendable commodities.

And let me be very clear. I am not injecting this into the debate; they are. Abortion methods, Mr. Chairman, are violence against

children. Dismembering a baby with sharp knives or chemically poisoning a child with drugs and toxic chemicals can never be construed as benign or compassionate. It is child abuse.

Let us get about reauthorizing this legislation. Let us do it without a wrap-around that would include the killing of unborn children.

I yield back the balance of my time.

Mr. PAYNE. Thank you very much, Mr. Smith. Ms. Woolsey?

Ms. WOOLSEY. No, Mr. Chairman, I am waiting to hear our witnesses. Thank you.

Mr. PAYNE. Mr. Fortenberry is not here. Oh, here he is. Go right ahead.

Mr. FORTENBERRY. Thank you, Mr. Chairman. I appreciate the opportunity to be a part of this hearing today, and thank the witnesses for your commitment to individuals and communities suffering from HIV/AIDS.

The deadly scourge of HIV/AIDS, which now ranks among the world's leading causes of death, claims most of its lives in Africa, the world's most impoverished continent. It is particularly devastating in sub-Saharan Africa, where healthcare infrastructures are least able to support the burgeoning numbers of infected persons.

While this hearing is focused on developing a sustainable plan to address HIV/AIDS, it is important to point out that unless we also develop a sustainable plan to help address the glaring shortage of healthcare workers and basic health infrastructures throughout sub-Saharan Africa, the impact of our HIV/AIDS efforts risks being diluted, at best.

According to the World Health Organization, the rate of infections is rapidly outpacing the rate at which infected individuals are treated. While the United States leads the world in providing treatment and care for communities affected by HIV/AIDS, notably through our PEPFAR program, we will continue to see millions of deaths unless we grapple more effectively with the issue of prevention.

As we stand before a $30 billion reauthorization of PEPFAR, I am acutely aware of the need to ensure that Federal funds available for HIV/AIDS prevention and treatment are channeled into the most effective evidence-based programs. Our ultimate objective is to save lives.

Uganda stands out as an example. Between 1991 and 2004, Uganda witnessed a decline in HIV prevalence from 15 percent to 5 percent. During this time, Uganda placed a decided emphasis on abstinence and fidelity, consistent with cultural norms. Yet such approaches seem to draw the most critical scrutiny.

It is my hope, Mr. Chairman, that our panel will examine these factors in an objective manner, as well as the delivery model for care of our most vulnerable and needy throughout the world.

Thank you, Mr. Chairman.

Mr. PAYNE. Thank you very much. Mr. Miller?

[No response.]

Mr. PAYNE. Mr. Scott?

Mr. SCOTT. Yes, very briefly, Mr. Chairman. Because I believe this is such a very, very important hearing. It is absolutely stag-

gering to hear the report that 90 percent of the children with HIV/AIDS is from Africa, one continent. And even worse than that, 90 percent from a certain part of that continent, sub-Saharan Africa.

It just seems to me that this presents an extraordinary opportunity where a focused, concentrated effort could be made. Just imagine if 90 percent of the children with HIV/AIDS were from the United States. Just think of that. And if we think of it in that perspective, the grand dynamic of this situation I think would be registered even more deeply.

And so, Mr. Chairman, I think the fundamental question that I believe needs to be asked today is, given the fact that PEPFAR is doing, in my estimation, a very good job, it can do a better job. Could that job be done better if there is a greater focus on the resources of PEPFAR to target just HIV/AIDS? And of course, we recognize malaria and the other diseases that are in here certainly can be dealt with, and should be; but neither is the life sentence that HIV/AIDS is.

So, Mr. Chairman, I just wanted to make those opening comments, thank this committee for bringing this extraordinary and timely hearing. And my hope is that this committee will move to even bring a better light and a brighter light to be shined on this extraordinary problem in Africa.

And I certainly look forward to joining you, Chairman Payne, on your next trip to Africa, so that we can bring an even greater degree of attention and move with greater resources to help the people of Africa fight this terrible, terrible disease.

Thank you and I yield back.

Mr. PAYNE. Thank you very much, Mr. Scott. Mr. Wu?

[No response.]

Mr. PAYNE. Mr. Green?

Mr. GREEN. Thank you, Mr. Chairman, and I will be brief like my colleague from Georgia.

I want to thank you for holding the hearing on the President's Emergency Plan for AIDS Relief. The HIV/AIDS epidemic is having a devastating impact on children and families worldwide, and nowhere is it more prevalent than in Southern Africa. Roughly 40 percent to 60 percent of all deaths of children under the age of five are caused by HIV/AIDS or related complications.

Most children living with HIV acquired the disease through mother-to-child transmission, or MTCT, which can occur during pregnancy, labor and delivery, or breastfeeding. In the absence of any intervention, the risk of such transmission is 15 percent to 30 percent in non-breastfeeding populations. Breastfeeding by an infected mother can increase it to 45 percent.

The risk of MTCT can be reduced to under 2 percent by interventions that include the prevention of anti-retroviral vaccines, when PEPFAR's primary mission should be to focus on mother-child health and the prevention of the MTCT.

In the area of children's health and prevention, I would like to recognize Baylor College Medicine and Baylor International Pediatric AIDS Initiative for the work they have done in Africa, as elsewhere in the globe. Approximately 80,000 HIV-infected children and families will receive care and treatment over the next 5 years

in two treatment centers. The initiative opened in Constanta, Romania, and Catarrhine, Botswana.

The reauthorization should encourage PEPFAR to partner with projects such as the Baylor Pediatric AIDS Initiative with the expertise that they can provide. As someone who strongly believes we need to address tuberculosis and malaria both abroad and here in the United States, I believe PEPFAR has served, also serves an important purpose in addressing the connection between AIDS and TB-related deaths. The leading cause of death among individuals who die from HIV/AIDS in Africa is not directly from these diseases, but from tuberculosis.

I have worked with any number of our colleagues, including Mr. Engel of this committee, to ensure necessary attention and resources given to combat these diseases collectively. As we look to reauthorize PEPFAR, I think it is important we continue to address tuberculosis and coordination with HIV/AIDS treatment.

Also, Mr. Chairman, thank you for holding the hearing. I will look forward to our panel. I yield back our time.

Mr. PAYNE. Thank you very much. Ms. Watson?

Ms. WATSON. Thank you, Mr. Chairman. HIV and AIDS have a devastating impact, not just on individuals, but on whole societies. And I think it is important that when we confront this issue, we pay equal attention both to helping patients and nations stay healthy.

Education can be an important and cost-effective social vaccine against HIV/AIDS. The cognitive skills required to make informed choices about HIV/AIDS and the risk and behavior are strongly related to education levels. Additionally, children who enroll and remain in school often have access to curriculum and information on HIV/AIDS prevention.

Despite the relationship between education and prevention, basic education is not included in PEPFAR's HIV/AIDS prevention strategy. And there is not enough coordination between basic education and HIV/AIDS programs on the ground.

I am not advocating for PEPFAR to become an educational program, and I think that would be a poor use of resources. But I would like to see us emphasize more how investing in basic education programs can, among other things, help us fight and help our fight against HIV.

Thank you, Mr. Chairman. I yield back.

Mr. PAYNE. Thank you very much. We are fortunate today to have four exceptionally accomplished members of the medical profession, all of whom have many years of experience with the issue before us. And so let me thank each of you for taking the time out to testify here before our committee.

We will hear the witnesses in this order. Dr. Helene Gayle, who is president and CEO of CARE, a position to which she came after serving as director of HIV and Reproductive Health with the Global Health Program at the Bill and Melinda Gates Foundation. She was director of the National Center for HIV/STD and TB Prevention with the Centers for Disease Control and Prevention, and served for 20 years in the U.S. Public Health Service, retiring with the rank of Rear Admiral.

We will then hear from Dr. Nils Daulaire, who is currently serving as president and CEO of the Global Health Council. He is a former Deputy Assistant Administrator for Policy and Senior International Health Advisor for the U.S. Agency for International Development. He has represented the United States at many major international conferences. Dr. Daulaire, who is a Phi Beta Kappa graduate of Harvard University, went on to Harvard Medical School for his M.D., and later earned his MPH at Johns Hopkins. He has worked in Nepal, Mali, Haiti, Bangladesh, and a number of other countries. Incidentally, he speaks seven languages. That is probably helpful.

Dr. Mukherjee specializes in the treatment of MDRTB and HIV and AIDS in the resource-poor countries and communities. She divides her time between Brigham Women's Hospital in Boston, and clinical sites in Peru, Haiti, and Russia. Dr. Mukherjee is board-certified with pediatrics, infectious diseases, and internal medicine. She is an attending physician for the adult and pediatric infectious disease services at BWH in Massachusetts General Hospital, and is a member of the faculty at the Harvard Medical School.

And finally, we have Dr. Norman Hearst, who is a physician and public health specialist at the University of California, San Francisco. The past 20 years he has been a leader in the field of international HIV/AIDS epidemiology and prevention, and has authored over 100 papers and 250 conference abstracts on the subject. He has also served as a consultant to WHO, UNAIDS, USAID, and various other governmental and international organizations.

Thank you for being here. We will start, as I indicated, with Dr. Gayle.

STATEMENT OF HELENE GAYLE, M.D., MPH, EXECUTIVE DIRECTOR AND CEO, CARE

Dr. GAYLE. Thank you. It is my pleasure to join this discussion on the reauthorization of PEPFAR. As many people have already stated, there are many reasons to be proud of what PEPFAR has already accomplished, including the incredible leadership role that the U.S. Government has taken in confronting this epidemic.

CARE is privileged to serve HIV-infected individuals and communities in over 40 countries, including 11 of the 15 PEPFAR countries. As an organization dedicated to eliminating extreme poverty, our programs addressing HIV and AIDS are done with a comprehensive view that looks at the broader landscape of development. And it is from that perspective that I am going to be focusing my comments today.

In fact, we believe that looking at HIV in the development context is the best way of assuring sustainability in our response to HIV and AIDS in poor communities that are disproportionately impacted by HIV.

As you know, the Institute of Medicine evaluated this program and said that this whole issue of moving from a short-term results-oriented, short-term results mode to a sustainable impact model is really what we need to focus on. And so I think that the IOM approach is the real focus of our comments.

In our 20 years of work on HIV and AIDS, CARE has learned that addressing the crisis effectively obliges us to invest in a range

of sectors, from food security to micro-finance, to girls' education, and to promoting major cross-cutting imperatives, such as the empowerment of girls and women.

Addressing HIV and AIDS solely as a medical challenge is like treating the symptoms, but not really the cause of the disease. So we feel that the objective of having a long-term sustainable impact on the epidemic needs to focus on three areas.

First of all, addressing HIV and AIDS within the development framework. Second, looking at, focusing on the vulnerability of girls and women. And third, investing in scaling up of evidence-based prevention strategies. And it is on those three recommendations that I will focus my comments today.

First of all, talking about addressing HIV and AIDS within a development framework, we think that Congress should strengthen U.S. global AIDS programming by giving PEPFAR a more sustainable, long-term objective that does strengthen the development interfaced overall, including new funding and more flexibility to integrate existing funding for vital programs like family planning and for food and income security and fostering a more comprehensive approach to HIV and AIDS by making wrap-around programs truly effective.

We cite several examples in our written statement, and I am not going to go into all of those here, but just give one example of a country that we work—Malawi—where adult HIV prevalence is 14 percent, and food and economic security is intertwined with HIV and AIDS.

In Malawi, CARE focuses on innovative strategies to use our food security and economic development programming to address HIV and AIDS more effectively. In our program there, we organized a diverse set of interventions, including village savings and loans programs, or micro-credit programs; vocational training; food aid as a safety net; training in home-based care; access to HIV-testing services; and support groups for stigma reduction.

We have seen by having this more integrated approach that we have been able to achieve an impact in many directions, including enhancing food and economic security, which reduces the pressure for women to engage in survival sex, while better nutrition has been able to help delay the symptoms and onsets of symptomatic AIDS in people who are HIV-positive and improved adherence to AIDS medication.

So we think that it is that integrated approach that has the best long-term outcome, and will have the most sustainable impact on both prevention as well as treatment efforts.

Specifically, we encourage Congress in this regard to require long-term, integrated, multi-sectoral strategies for our global AIDS response; provide multi-year—at least 3-year—minimum funding that fosters a more sustainable mindset; focus on achieving long-term impact, rather than generating quick results, by strengthening the impact measures; and also addressing social processes that underpin the vulnerability to HIV. And then making wrap-around services actually work, and work effectively, combining new funding and fostering additional coordination with existing funding.

And also, we think that harmonizing U.S. Government planning with national governments and other donors will be critical to bringing a variety of funding streams to strengthen programs.

Second, focus on the vulnerability of women and children, the women and girls at risk of contracting HIV. Given the increase impact that HIV is having on women, where 50 percent of new HIV infections are occurring in women, 60 percent of new HIV infections in Africa are occurring in women, Congress should invest in comprehensive approaches that engage the multiple factors that drive the vulnerability and low status of girls and women, and integrate HIV/AIDS responses with reproductive health services and improved access to family planning.

Specifically, we urge Congress to advance comprehensive programming through PEPFAR that addresses the social and economic and cultural factors that affect the vulnerability of women and girls, and give new emphasis on improving gender equity and women's status.

Third, integrate and link HIV and AIDS programs and reproductive health programs, especially family planning, and strengthen efforts to reduce unmet family planning needs among HIV-infected women.

Fourth, require mandatory operational guidance for country programs on gender-responsive programming.

And my final point, invest in scaling up evidence-based HIV strategies. Ultimately, as you said, Congressman Payne, we can't treat our way out of the HIV/AIDS epidemic. We must immediately increase our efforts to deliver comprehensive, evidence-based prevention programming worldwide. We, therefore, urge Congress to specifically identify prevention as the highest priority for U.S. Global HIV/AIDS Programming over the next 5 years, and ensure that funding is available to deliver universal access to the prevention services essential to our efforts to combat the epidemic.

We must also ensure that countries have the ability to tailor prevention strategies to match the epidemiology of each country. We recommend that the reauthorization avoids specific budget allocations and restrictions, such as the abstinence-until-marriage earmarks, and instead support countries' ability to shape their programs to meet their needs and their cultural traditions. Advance an ABC-plus strategy to address the underlying vulnerabilities by confronting social norms that put women and girls at risk, as well as targeting efforts to prevent gender-based violence; enhance food and economic security; secure property rights; and improve access to reproductive health services. While we believe that the ABC strategy is critical and has to be a foundation, we feel that an ABC-plus approach that really looks at some of these other issues that are critical for the vulnerability of women is essential, and that we just deploy evidence-based strategies to curb HIV transmission among the groups at highest risk, particularly in countries that have not yet faced a generalized epidemic. That includes sex workers, injection drug users, men who have sex with men, and prisoners, if we really want to have a truly global impact on this epidemic.

Again, I will end there, but I just want to say that I think we have an incredible opportunity, through PEPFAR, to continue to

exert extraordinary leadership in the global fight against HIV and AIDS. These last 5 years have shown the American people and our friends and partners around the world something unique: That the power of hope, coupled with action to advance our highest aspirations for the common good, can really have an incredible impact on this epidemic.

I thank you, and I look forward to entertaining your questions.

[The prepared statement of Dr. Gayle follows:]

PREPARED STATEMENT OF HELENE GAYLE, M.D., MPH, EXECUTIVE DIRECTOR AND CEO, CARE

Mr. Chairman, Ranking Congresswoman Ros-Lehtinen, Members of the Committee. Thank you for the opportunity to join this important discussion on the reauthorization of the President's Emergency Plan for AIDS Relief or PEPFAR. There are many reasons to be proud of what PEPFAR has accomplished. The devastation of the HIV pandemic at the dawn of the 21st century demanded an urgent response, and the U.S. government rose to that challenge—demonstrating vital leadership, taking determined action and investing unprecedented resources. I congratulate the U.S. government on its leadership, and applaud President Bush's pledge to amplify the U.S. government's commitment to fighting HIV and AIDS.

I welcome the keen interest that Members of Congress have shown in the oversight of PEPFAR's performance and in the development of PEPFAR's successor. Your engagement is critical: PEPFAR is a precious resource and we must be absolutely sure that its investments will yield optimal, long-lasting results. This moment—of looking back at PEPFAR's past and looking forward to its future—calls for a spirit of openness, honesty and collaboration. It is in that spirit that I engage with you today.

I speak today on behalf of CARE, an international development and relief organization that has worked for more than 60 years in some of the poorest communities in the world. CARE began working on HIV and AIDS twenty years ago. We now address HIV and AIDS in over 40 countries with support from a range of public and private donors and a multi-year portfolio of HIV and AIDS programs totaling $183 million. CARE works in 11 out of the 15 PEPFAR focus countries and in four of the five non-focus countries that receive more than $10 million annually from PEPFAR. CARE's approach to HIV and AIDS is typically community-based and multi-sectoral. We address HIV and AIDS comprehensively as part of the broader landscape of poverty, and focus on addressing the vulnerability of women and girls to HIV and AIDS.

FROM EMERGENCY TO SUSTAINABILITY

When PEPFAR got started, confronting HIV and AIDS with the urgency of responding to a large-scale emergency was important. Make no mistake about it: AIDS is still a crisis of enormous proportions, so that sense of urgency must remain. But we must now *transform PEPFAR into a program that is capable of responding to HIV and AIDS as a protracted challenge that has complex social, economic and cultural dimensions*, in addition to the obvious health dimension. That calls for addressing HIV and AIDS within a development framework, integrated with other key health issues. Otherwise, our investments may effectively address the consequences of HIV and AIDS in the short-term, while making little headway in attacking the underlying drivers of the pandemic over the long-term. This is a marathon, not a sprint: we need a coherent, sustainable strategy for the hard work ahead of us—and that is what we are here to discuss today.

As you know, the Institute of Medicine (IOM) evaluated U.S. global AIDS programming and concluded that PEPFAR must transition from an emergency, short-term results mode to a much greater focus on sustainable impact. Given that sustainability will be the linchpin of PEPFAR's long-term success, it is worth probing what that concept signifies. One type of sustainability relates to a set of activities continuing, even after their initiator exits. Another type refers to the durability of a certain impact: for example, a vaccine that provides immunity to a disease. A deeper form of sustainability is reflected in the ability of societies to maintain processes of economic, social and cultural transformation. In the case of an epidemic like AIDS that cannot be disentangled from the economic, social and cultural factors that drive it, we must pursue all three forms of sustainability, in particular the deepest, most durable form.

Over the years, CARE has learned many hard lessons about sustainability and impact. We have discovered that interventions that advance goals that are easily measurable in the short-term often fail to add up to long-term impact. We have also learned that a variety of well-designed projects may not have impact of much depth or scale unless they fit within a broader framework. These lessons are useful for PEPFAR too. CARE's experience with PEPFAR, often echoed in the IOM evaluation, indicates the following: that PEPFAR's tendency to fund short-term interventions often neglects the social processes vital for real local ownership; that its emphasis on quick results produces incentives to "demonstrate big numbers"; and that its narrow focus and compartmentalized approach to prevention, treatment and care inhibit integrated, comprehensive programming. These are features of PEPFAR that must change, if lasting impact and real sustainability are to be realized.

POSITIONING PEPFAR WITHIN A DEVELOPMENT FRAMEWORK

The problems that afflict poor communities are woven together in a complex web. Solving these problems requires changing the weave of that web, rather than addressing each strand one by one. In the case of HIV and AIDS, the disease is often not the top priority for many poor people. Time and again, mothers tell us that feeding their children is their main worry. For girls, it is often going to school or avoiding early marriage. For sex workers, it is often harassment and discrimination. The transformation of this broader landscape—of inequality, violence and hardship—into something more equitable, safe and prosperous is the challenge of development. Doing so is vital to addressing the often synergistic drivers of vulnerability to HIV and AIDS. *That is why sustainable, effective HIV and AIDS interventions must be closely linked to development.*

Addressing HIV and AIDS solely as a medical challenge is like treating the symptom but not the cause. Over the years, CARE has learned that to attack the drivers of the epidemic, we must deploy comprehensive and well-integrated approaches tailored to each context. For example, in Malawi, where adult HIV prevalence is 14 percent, food and economic insecurity is intertwined with HIV and AIDS. So CARE focuses on how our food security and economic development interventions can be platforms to address HIV and AIDS. We organize a diverse set of interventions, including village savings and loans groups, vocational training, food aid as a safety net, training in home-based care, access to HIV testing services, and support groups for stigma reduction. This integrated approach attacks HIV and AIDS from many angles: for example, enhanced food and income security reduce pressure for women to engage in survival sex, and resulting improvements in nutritional status help delay the onset of AIDS in HIV-positive people and improve efficacy of ART. Mai Chautsi, who belongs to a support group for people living with HIV and AIDS, told us that micro-enterprise skills have enabled members of her group to improve their health and nutrition. She said: "With our profits, we are able to buy nutritious food, especially proteins, which we could not afford in the past. Some members would miss accessing their ARVs at the hospital because they could not afford transport fares. They can now go to the hospital on time."

Another example is the "5 x 5" model of early childhood development (ECD) that CARE has developed to comprehensively address the needs of OVC under five years. The "5 x 5" model advances interventions in five areas: nutrition, child development, economic strengthening, health and child protection. The model also engages at five different levels: the individual child, the caregiver or family, child care settings, the community (including health services) and the national policy arena (particularly related to health and education). The model seeks to intervene at early childhood to enhance the long-term potential of very young children affected by HIV and AIDS. The child care setting is the entry point but the strength of the "5 x 5" approach is the linking of actors and services, and its strong investment in community ownership.

In Busia, a town along a busy transport corridor in Uganda, some young mothers are children themselves and are far from home. These young women are paired up with "mother mentors" (older mothers) who can coach them on parenting skills, educate them on HIV prevention and link them to family planning services. In Kibera, an urban slum in Kenya, two health centers are formally linked to the ECD centers, and children from the ECD centers receive a variety of health services from immunizations to monitoring for indications of HIV infection. Before these links were made, many people did not even know about the health centers. CARE's integrated ECD model is promising because it does more than reduce a young child's vulnerability and isolation, increase health status and enhance school readiness. The "5 x 5" model also promotes women's economic empowerment and girls' education.

How? Because so often women cannot work because they are responsible for child care, or girls are taken out of school to look after younger siblings.

RECOMMENDATIONS FOR SUSTAINABILITY AND LONG–TERM IMPACT

There is broad consensus that, in order to optimize the U.S. government's investment in the global response to HIV and AIDS, PEPFAR must be better focused on sustainability. Based on our extensive field experience with HIV and AIDS programming and our role as a PEPFAR implementing partner, CARE makes the following recommendations:

1. *Address HIV and AIDS within a development framework.* The Committee should provide PEPFAR with a long-term outlook and foster comprehensive approaches to HIV and AIDS by making "wraparound" truly effective.
2. *Focus on the vulnerability of women and girls to HIV and AIDS.* We should invest in comprehensive approaches that address the multiple factors that drive the vulnerability and low status of women and girls, and integrate HIV and AIDS responses with reproductive health and family planning.
3. *Invest in scaling up evidence-based HIV prevention strategies.* Ultimately, we must increase and re-balance funding to scale up comprehensive prevention efforts, while we confront the realities of HIV transmission with evidence-based strategies.

I will discuss each recommendation in further detail, grounding my observations in CARE's field experience and recent expert analysis.

1. Address HIV and AIDS within a development framework.

PEPFAR's current orientation—of rapid results, short-term funding, narrow focus and numeric outputs—is not well-suited to addressing the multi-faceted links between HIV and AIDS and development. Let me give you an example from CARE's experience in Rwanda, where genocide and AIDS have produced large numbers of OVC. With three-year funding from the European Union, CARE set out (in 2003) to provide comprehensive care to OVC in communities affected by HIV and AIDS, especially child-headed households. From the outset, we wanted the approach to be sustainable, community-based and capable of responding not only to children's material needs but also their psychosocial and protection needs. The model that emerged was of volunteer community mentors (Nkundabana)—organized into associations, recognized in their communities, trained and supported, and chosen by the children for their integrity—being parent figures, providing mentoring and counseling, facilitating access to basic services, and advocating for OVC needs and rights. The approach invested heavily in community participation and ownership, taking the time to cultivate a feeling of responsibility toward OVC, giving OVC the confidence and opportunity to articulate their own needs, and engaging Rwandan organizations in helping OVC claim their rights and recover from trauma.

Our model remained flexible and open to change; it evolved considerably over three years, with many of the changes initiated by OVC or Nkundabana. The results have been very promising in terms of mitigating the impact of HIV and AIDS: OVC are more integrated into their communities; they have better access to schools, health care and nutrition; they are more secure from violence, especially girls vulnerable to sexual abuse; they know more about HIV and family planning; they have reclaimed property lost in "land grabs" to which OVC are typically vulnerable; and older OVC are earning incomes as a result of vocational skills and savings and loans groups. At the end of the project, 95 percent reported better relationships with community members and 96 percent that local authorities would look out for them if they had problems, major progress for a segment of the population generally facing widespread exclusion and marginalization.

In 2005, we received PEPFAR funding to replicate the Nkundabana model and soon realized how challenging it was to align a comprehensive, community-oriented model with PEPFAR's way of doing things. Short-term funding and pressure to meet numerical targets focused attention on implementing activities quickly and limited CARE's ability to assure that this approach to caring for OVC was fully integrated within and owned by the community, so that it could be sustained over time. CARE is no longer a major implementing partner for PEPFAR's OVC care and support interventions in Rwanda, but we did secure further EU funding to work with partners to continue developing the Nkundabana model and to replicate it in the northern part of the country. The pressure within PEPFAR to deliver quickly and on a large scale is in constant tension with the goal of sustainability. PEPFAR reauthorization must address this challenge by:

A. Articulating a *long-term* outlook for PEPFAR.

- Require *long-term, integrated, multi-sectoral strategies for the U.S. government response to HIV and AIDS* in each country. These strategies would position HIV and AIDS within the broader development setting and be aligned with the plans of national governments.
- Provide multi-year funding that fosters a sustainability mindset. *Three-year funding commitments* should be a minimum.
- Focus on achieving long-term impact rather than generating quick results.[1] *Impact measures* must address *social processes* that underpin the social, cultural and economic transformations needed to disable the AIDS epidemic, to validate that our interventions are effective, and to hold all of us accountable.

B. Making *"wraparound"* work in order to advance coherent, integrated programs.

- Ensure that there are other viable funding streams to wrap around PEPFAR. Funding for family planning, education, micro-finance and food security, for example—essential to integrate with an HIV and AIDS response—must be enhanced.
- Improve coordination among U.S. government agencies through stronger inter-agency planning, budgeting, and monitoring and evaluation.
- Harmonize USG plans and investments with those of national governments and other donors for maximum synergy and complementarity in the pursuit of shared goals.

2. Focus on the Vulnerability of Women and Girls to HIV and AIDS.

The face of the AIDS epidemic is female—and increasingly young. In sub-Saharan Africa, 60 percent of the people living with HIV and AIDS are women; and for each young man newly infected with HIV, three young women are infected.[2] This not only reflects the acute vulnerability of women and girls to HIV and AIDS, but also the failure of the global response to address the complex factors that drive their vulnerability. Women are biologically more susceptible to contracting HIV and socially less able to negotiate safe sexual encounters. Far too many girls are coerced into first sex or forced into early marriages with older men. Far too many women are pressured into "survival sex" out of sheer poverty. When women are known to be HIV-positive, they are often blamed and ostracized, even though they so often contract the virus from their unfaithful husbands. When a family member is HIV-positive, women and girls shoulder the burden of caring for the sick. The property of AIDS widows is frequently expropriated by their in-laws. The multiple ways in which women are affected by HIV and AIDS lay bare their vulnerability due to social norms that relegate them to a subordinate status in relation to men.

In identifying what it would take to shift PEPFAR toward sustainability, the IOM evaluation noted that "most of the factors that contribute to the increased vulnerability of women and girls to HIV/AIDS cannot be readily addressed in the short-term" and recommended that PEPFAR focus on "factors that put women at greater risk of HIV/AIDS."[3] The recent report of the Global HIV Prevention Working Group, of which I am co-chair, argues that an effective strategy would need to reduce women's vulnerability by fostering women's empowerment—including helping women secure rights to property and inheritance, increasing their economic independence, advancing universal education for girls, preventing sexual violence and developing new HIV prevention methods that women can control.[4] Engaging men and boys, and shifting gender norms over time, is also vital. CARE endorses these recommendations. Our experience points to the need to address women's vulnerability in comprehensive ways, focusing not only on their HIV-related needs but also on their ability to make independent decisions (e.g. accessing health services), their confidence to negotiate in relationships (e.g. with husbands, village chiefs, service providers), laws and institutions that protect women's rights (e.g. in relation to property and inheritance rights) and opportunities to link women together to promote solidarity and collective action.

In Kenya, CARE implements a PEPFAR-funded program that aims to prevent mother-to-child transmission (PMTCT) of HIV in Nyanza province, which has the highest HIV prevalence rate in the country (15 percent). This work began with a narrow focus on testing women and making ART available to mother and baby, but it is continuously becoming more comprehensive. As such, we believe it is a worthy

---

[1] This does not, in any way, translate to weaker accountability or negate the need for regular monitoring of results.

[2] UNAIDS, 2006 Epidemic Update, p 4.

[3] *PEPFAR Implementation: Progress and Promise*, Institute of Medicine, March 2007, p 7.

[4] *Bringing HIV Prevention to Scale: An Urgent Global Priority*, Global HIV Prevention Working Group, June 2007, p 9.

model for PEPFAR to evaluate more deeply. To prevent a child saved from HIV dying of a preventable diarrheal disease, CARE facilitated access to safe water systems. To deal with the reality that pregnant women who test HIV-positive often do not return for ART (out of fear of violence or stigma, or because she cannot afford transport), we organized support groups for HIV-positive mothers, mobilized communities against HIV-related stigma and linked women with micro-credit services. Since 2003, uptake of nevirapine at thirteen anti-natal clinics in Siaya district, CARE's main focus area, increased from 35 percent to 94 percent. Recognizing that the most cost-effective PMTCT method is to avoid unintended pregnancy in the first place, the program is now linking with family planning services.

We welcome the steps that the Office of the Global AIDS Coordinator (OGAC) has taken to address gender issues. OGAC now collects sex-disaggregated data, has five priority gender strategies, convenes an inter-agency Gender Technical Working Group, and has allocated $8 million toward gender-related initiatives. These are promising trends, and PEPFAR reauthorization should push for deeper impact on women and girls' vulnerability by:

A. Advancing comprehensive programs that address the social, economic and cultural factors that enhance the vulnerability of women. Since the low status of women is itself a driver of vulnerability, women's empowerment should be embraced by PEPFAR as a desired endpoint. Recognizing that transforming gender norms and relations is a slow process, such results must be pursued within long timeframes. Otherwise, we run the risk of doing more harm than good.

B. Integrating and linking HIV and AIDS and reproductive health programs, and strengthening efforts to reduce unmet family planning needs among HIV-affected women.

C. Developing mandatory operational guidance for country programs on gender-responsive programming. This guidance should help country teams and implementers conduct analysis, planning and evaluation to meaningfully integrate gender dimensions into all of PEPFAR's work.

D. Investing in independent impact studies that provide a sharper sense of "what works" (what gender interventions are most effective in impacting HIV outcomes in the long-term) and scaling up effective approaches for maximum impact.

3. Invest in Scaling Up Evidence-Based HIV Prevention Strategies.

Despite a six-fold increase in financing for HIV programs in developing countries between 2001 and 2006, the effort to reduce new HIV infections is faltering.[5] For every patient who began ART in 2006, another six people were infected with HIV. Such results will not lead to success or sustainability. There is an urgent need to focus on comprehensive, evidence-based strategies and take those strategies to scale. Half of the infections projected to occur by 2015 could be averted, if the right interventions are focused on the right people at the right scale—and this degree of success is likely to disable the epidemic and push it toward long-term decline.[6]

I want to underscore the importance of thinking in terms of *the right interventions, the right people and the right scale*. We need to match our responses to the specific epidemiology of each country; there is no "one size fits all" solution and our mix of interventions should be quite different in generalized epidemics and concentrated epidemics, for example. Investing in prevention at the *right scale* is an enormously important factor, which has not received adequate attention. There are many barriers to scaling up, beginning with insufficient and uncertain funding. The scale up of funding for treatment, and the resulting steady increase in numbers of people on ART, demonstrates that dramatic progress that can be achieved, when political will is strong. Given the high need that remains, we must keep up the progress on treatment access even as we scale up comprehensive prevention efforts to a level that can halt the growth of the AIDS pandemic. Significantly ramping up HIV prevention spending now would not only avert half of the new infections projected to occur between now and 2015, but also yield net financial savings in terms of treatment and care costs avoided.[7]

In identifying what it would take to move PEPFAR toward sustainability, the IOM report noted that, "partly in response to legislative mandates, [PEPFAR] has supported some preventive interventions that are not firmly evidence-based [and]

[5] Ibid, p 1.
[6] Ibid, p 1.
[7] Stover et al. The Global Impact of Scaling Up HIV/AIDS Prevention Programming in Low- and Middle-Income Countries. *Science.* 2006: 311: 1474–1476.

addressed sources of HIV transmission in disproportion to their expected contribution to the ultimate goal of preventing new infections."[8] PEPFAR's approach to prevention of sexual transmission, symbolized by the abstinence-until-marriage earmark in the Global AIDS Act of 2003, has drawn both sharp criticism and ardent approval. CARE's experience with the ABC approach is that U.S. government country teams implement the ABC approach unevenly, some allowing considerably more latitude for implementers than others. The result is that the heavy emphasis on AB and the polarization of the prevention debate into "AB versus C" often misses the reality that even a balanced ABC approach offers limited options to the most vulnerable people, especially women and girls; ultimately, it is the "ABC *plus*" approach that we must advance.

We endorse the recommendations of the Global HIV Prevention Working Group, and call for a package of comprehensive prevention interventions—from HIV testing to condom promotion, from PMTCT to interventions for injecting drug users, and from behavior change to anti-stigma measures—to be fully scaled up in each focus country. PEPFAR reauthorization must invest in scaling up evidence-based prevention strategies by:

A. *Funding the scale-up* of comprehensive prevention efforts. CARE recommends that Congress assign universal access to prevention as PEPFAR's highest priority and that it provide sufficient funds to ensure U.S. fair-share support to scale up prevention programming in focus countries and other affected low- and middle-income countries, as appropriate, to combat the AIDS pandemic.[9]

B. Tailoring prevention strategies to *match the epidemiology* of each country. This necessarily means *removing arbitrary restrictions* in order to allocate resources to areas where the largest number of new infections can be averted. CARE recommends that the PEPFAR reauthorization avoid budget allocations and restrictions such as the abstinence-until-marriage earmark and the anti-prostitution pledge requirement, since they tend to work against evidence-based prevention approaches being deployed in the most strategic manner.

C. Advancing an ABC plus approach to address underlying vulnerabilities. This includes confronting social norms that put women and girls at risk, as well as targeted efforts to prevent gender-based violence, enhance food and economic security, secure property rights and improve access to reproductive health services.

D. Deploying evidence-based strategies to curb HIV transmission in high-risk groups including sex workers, injecting drug users, men who have sex with men, and prisoners. In much of Asia and Eastern Europe, these groups account for the majority of new HIV infections. In order to have a global impact, PEPFAR must employ more effective, evidence-based strategies to prevent transmission among high-risk groups.

Mr. Chairman, Members of the Committee. You have a singular opportunity to make an extraordinary difference throughout the world by ensuring that millions of lives are saved and PEPFAR is even more effective over the next five years. I thank you for the opportunity to contribute to this important discussion.

I would be pleased to answer any questions.

Mr. PAYNE. Thank you very much. Dr. Daulaire.

STATEMENT OF NILS DAULAIRE, M.D., MPH, PRESIDENT AND CEO, GLOBAL HEALTH COUNCIL

Dr. DAULAIRE. Thank you very much. And my particular appreciation to Chairman Lantos and Ranking Member Ros-Lehtinen for convening this important hearing; and to you, Congressman Payne, and Congressman Smith, for your leadership of the Africa Subcommittee and your work on global health broadly.

I represent the Global Health Council, which is a membership organization made up of more than 400 organizations working in over 100 countries around the world, delivering healthcare services

[8] Institute of Medicine, p 6.
[9] Stover et al.

on the front lines. Our members work in HIV/AIDS, reproductive health, infectious diseases, maternal and child health, water and sanitation, nutrition programs, and the entire range of activities that go into making people living in the poorest corners of the earth healthier.

Personally, I am a physician. I have spent the last three decades working in the arena of global health, both personally and also working on policy and advocacy. So I have seen this from many different sides.

And over those three decades, there is no question but that the advent of HIV/AIDS on the scene a quarter of a century ago was one of the watershed marks in the history of global health.

It was a slow and disappointing start in terms of the global response. But over the past decade, the attention that has come to bear, and in the past 4 years the establishment of PEPFAR has been a vitally important step forward, a final recognition and dramatic action which we strongly applaud. And we applaud this committee's profound role in making that happen and supporting it on a bipartisan basis.

But we are now at a point of looking at reauthorization of PEPFAR, or you are. We are here to help you, we hope. And I would say that, again, as a physician, we have been looking at how to get the emergency room up and running. That is, the President's Emergency Plan for AIDS Relief.

And at this point it is time to begin the transition to building, if you will, the community clinics that will keep people from coming into that emergency room.

We recognize at this point that HIV will be with us, will be with the world, for a very long time to come, for generations to come. We have no cure. The most promising vaccine candidate last week was, sadly, found to be ineffective. And so as this committee looks at ways of establishing a long-term response—I am not taking away from the emergency aspect, but to make this something that the United States is in for the long haul, because that is our obligation—we need to start thinking about this as a chronic disease. The same way we think about diabetes and heart disease and cancer in this country. Something that we have to build comprehensive and integrated programs to address.

Now, we have heard the word integration a number of times this morning. And often, something like that can become a buzz word that loses its meaning. But let me telling you from the standpoint of the practitioners and the implementers in the field whom I represent, integration is a profoundly important aspect of making things work. And I would urge this committee, as you look at reauthorization, to look at integration on four levels.

First, internally. As Dr. Gayle has talked about, the integration between prevention, treatment, and care.

Second, laterally. Integration with other U.S.-supported health programs.

Third, nationally. In the countries where PEPFAR is working, working to support health systems and developing manpower who will be able to address these problems over the long term.

And fourth, externally. Working closely with other programs that are engaging in addressing not only HIV/AIDS, but other critical health needs in the world.

Now, we have heard several times today that we will never be able to treat our way out of this epidemic. And that is notably true, when we look at the fact that for every person who has been started on treatment, under PEPFAR and the Global Fund, six new people have become infected. Obviously, prevention has to be the hallmark of effective action. And I strongly endorse Dr. Gayle's earlier testimony.

Secondly, in terms of integrating across health programs. We recognize at this point, the people who are out there in the field, that HIV/AIDS programs cannot succeed on their own. And I believe we will be hearing from Dr. Mukherjee about some very specific aspects of that.

In addition, better health can't be accomplished without looking across the range of programs between HIV/AIDS, maternal and child health, family planning and reproductive health, control of other infectious diseases, and the building of health systems.

And let me be specific. We have heard about the important work that has been done in terms of preventing infections of newborns with HIV. This is a preventable tragedy that occurs more than half a million times a year. PEPFAR addresses this through a program to test pregnant women and provide those who are HIV-positive with the drug Navirapane, which is a low-cost, highly effective intervention. This is a terrific medical intervention. And yet, even though it has been a priority under PEPFAR, throughout the world even now, most women are never tested for HIV. Only a small proportion of those who could benefit receive Navirapane. Only a small dent has been made in the number of infected children born in poor countries. And even less impact has been seen in overall child death rates.

Now, this is not a criticism of PEPFAR; it is a reality of the difficult circumstances that we try to work in. And why is it?

First, because women generally come to the healthcare system in the first place not for HIV care, so they don't come to the HIV clinic. They come for routine family planning and maternal and child healthcare. Most of them don't even know that they are HIV-positive. So unless the HIV services are deeply integrated with family planning and maternal and child health services, most who need them will never even know that they need them, much less get them.

These women need help with more than just their HIV infections. Their first priority is for safe pregnancy and delivery. They and their newborns need to sleep under malaria bed nets. They need access to nutritious food. They need to know how they can delay, or even prevent, their next pregnancy, if they so choose. And their newborns, whether HIV-infected or not, still need basic newborn and child care. After all, most children who die, even most children dying as a consequence of HIV infection, die from diarrhea, pneumonia, malaria, and other common immunizable childhood diseases. Anti-retroviral drugs alone can't save them without the child health services, which, sadly, are currently in some places

withering on the vine, because resources and manpower are being redirected toward the single issue of HIV.

When we look at these linkages, it becomes clear that we have to support the broader range—and in my written testimony I have provided some more details of what I would propose there.

Thirdly, as I said, it is important to integrate nationally. And we will be hearing in a few moments about the vital importance of strengthening health systems and assuring an adequate supply of well-trained, well-supported, and well-motivated healthcare workers, from doctors down to community health workers.

Now, this increased support is vital. We are delighted to see the dollar levels that are being talked about for reauthorization. But I want to stress that in this context of global health, this support must not come at the cost of other global health programs. It must come as a part of a broad support package.

PEPFAR should not be, in our opinion, the U.S. Government's global health platform. It is appropriately directed at HIV and AIDS. But the U.S. Government does need to build such a platform. And I look forward, Mr. Chairman, at a future point in having that discussion with the committee.

We are delighted that the issue that is foremost on the minds and hearts of millions of people around the world has received the level of attention that it is now receiving from the United States Congress and this administration. We congratulate you on this, and we look forward to working with you in the future.

Thank you.

[The prepared statement of Dr. Daulaire follows:]

PREPARED STATEMENT OF NILS DAULAIRE, M.D., MPH, PRESIDENT AND CEO, GLOBAL HEALTH COUNCIL

Chairman Lantos, Ranking Member Ros-Lehtinen and members of the committee, thank you for holding this important hearing today on *PEPFAR Reauthorization: From Emergency to Sustainability*. I am Dr. Nils Daulaire, President and CEO of the Global Health Council, the world's largest membership alliance of health professionals and service organizations working to save lives and improve health throughout the world.

Before I begin my remarks, let me applaud you, Mr. Chairman and other members of the Committee, for your steadfast commitment and dedication to global health issues, and especially for your dedication to fighting HIV/AIDS. I congratulate you for your bipartisan work on H.R. 1298, the United States Leadership Act Against HIV/AIDS, Tuberculosis and Malaria. This historic legislation set the stage for an unprecedented U.S. Government investment in the fight against a serious global health challenge. The importance of this massive investment cannot be overstated; it has literally transformed the concept of what is possible in the realm of global health. On behalf of the Council's 400 member organizations working in over 100 countries across the globe, and the millions whose lives are improved by U.S. Government-supported global health programs, we thank you.

The Global Health Council's members include nonprofit service organizations, faith-based organizations, schools of public health and medicine, research institutions, associations, foundations, private businesses and concerned global citizens whose work puts them on the front lines of global health—delivering programs, building capacity, developing new tools and technologies, and evaluating impact to improve health among the world's poorest citizens. Our members work on a wide array of issues, including of course HIV/AIDS, but also other infectious diseases, child and maternal health, family planning, water and sanitation, and health systems strengthening.

I am a physician and have been personally engaged for more than three decades in the global effort to improve the health of the poor. When AIDS came on the scene 25 years ago, few anticipated that it would grow to the worst pandemic of modern times, and the world's initial slow response gave the virus a chance to establish its

death grip on the lives of millions. But the past decade has been heartening to those of us who have taken on the challenge of building health programs and services in the forgotten corners of the world. U.S. leaders, as well as leaders from other countries and the U.N., notably UNAIDS through the sound leadership of Peter Piot, have recognized both the severity and the moral call of HIV/AIDS, and the response has been unprecedented.

A signal accomplishment of this new century has been the partnership between the Bush Administration and a solid bipartisan majority of the U.S. Congress that moved the President's Emergency Plan for AIDS Relief (PEPFAR) forward and made it the cornerstone of the largest prevention, care and treatment effort the world has ever seen. It is clear that PEPFAR has had some enormous successes over the last four years. Today you recognize that those successes need to be fully understood in order to build on them and to make them lasting.

The things that have worked need to be reinforced, and those that haven't worked so well need to be addressed. The reauthorization process provides us with an opportunity to examine ways to make this program more effective for the long run. To help provide constructive and informed input into the PEPFAR reauthorization process, the Global Health Council has for months now engaged a wide network of experts, implementers and advocates through the Global AIDS Roundtable and the more programmatic HIV Implementers Group. We look forward to working with this Committee over the coming months to ensure that the next generation of this program continues its forward momentum.

This Administration's commitment to the fight against the global spread of HIV/AIDS has resulted in extraordinary accomplishments. Similarly impressive efforts have begun for malaria under the President's Malaria Initiative (PMI). But one thing is clear to those of us who engage daily in delivering these services: While an emergency response focused on a single disease can have remarkable, short-term results, it will not succeed as a model for the long-term response that is necessary for reversing the HIV/AIDS pandemic.

Early in his tenure, the President's first Global AIDS Coordinator, Ambassador Randall Tobias, was asked about the inter-relationships between the HIV/AIDS response and other public health interventions such as maternal and child health, family planning, nutrition, clean water, and other diseases. His response was to acknowledge that these were important problems, but that his charter was to combat HIV/AIDS through the sharp lens of prevention, care and treatment. Congress had set very ambitious targets, he told us, and he had to stay completely focused on them.

His point was understandable. But I believe that, in the long run, this was shortsighted, a mistake of first principles. Over the past few years, it has become very apparent that, in the long run, we cannot succeed in our efforts against HIV/AIDS without linking PEPFAR much more closely with these other interventions and with strengthening health systems more broadly.

Let me take as an example the issue of newborn infection with HIV, a preventable tragedy that occurs over half a million times a year. PEPFAR addresses this through a program to test pregnant women and provide those who are HIV-positive the drug nevirapine, a low-cost highly effective intervention. This has been a priority program under PEPFAR. Yet throughout the world, most women are never tested for HIV, a small proportion of those who could benefit receive nevirapine, only a small dent has been made in the numbers of infected children born in poor countries, and even less impact has been seen on overall child death rates. Why is this?

First, because women generally come to the health care system in the first place not for HIV care but for routine family planning and maternal and child health care. Most of them don't even know they are HIV positive. So unless the HIV services are deeply integrated with family planning and maternal and child health services, most who need them will never even know they need them, much less get them.

These women need help not just with their HIV infections. Their first priority is for a safe pregnancy and delivery. They and their newborns need to sleep under malaria bed nets. They need access to nutritious food. They need to know how they can prevent or delay their next pregnancy.

And their newborns, whether HIV infected or not, need basic newborn and child care. After all, most children who die, even most children dying as a consequence of HIV infection, die from diarrhea, pneumonia, malaria and other common immunizable childhood diseases. Antiretroviral drugs alone can't save them without the child health services that are currently withering on the vine because resources and manpower are being redirected towards HIV/AIDS.

The current Global AIDS Coordinator, Ambassador Mark Dybul, understands this reality, and has taken steps to establish these linkages. I think he could use some help, and I believe that the Congress can provide that help by granting specific authority for, and even requiring, the Global AIDS Coordinator to link directly to these services and, when they are weak or inadequate, to support them directly with PEPFAR funds. Far from being a diversion of resources, this would assure that our HIV/AIDS dollars are spent most effectively.

Should PEPFAR then be the platform for all basic health services or bear the programmatic burden for the full array of health issues facing communities in the developing world? No. The appropriate U.S. policy approach must encompass, but not be based upon responses to any single disease.

I will return to specific thoughts on PEPFAR reauthorization in a moment. Let me offer you the bottom line here: While beyond the scope of this hearing alone, the U.S. Government ultimately needs a comprehensive strategy to guide its engagement in improving the health of the world's citizens and, in turn, protecting the health of its own. This is my fourth appearance before Congress this year. I have testified about maternal and child health, malaria, tuberculosis and now AIDS. I appreciate the opportunity to share expert perspective on each of these topics, but budget line items and various agency authorities have dissected a single experience—health—into disparate funding, policies and programmatic approaches that undermine our ultimate goal: healthier individuals and families and therefore more stable and productive global communities. Investing in health is not just a humanitarian response. The returns on its investments are also seen in economies and sound political systems. With U.S. Government investments in global health on the order of $6 billion (with nearly $5 billion committed to AIDS alone), don't we want to make the most of our investment? I have been at this for decades, and I can tell you with confidence that single-disease, single-intervention or any other siloed approach simply will not succeed.

This hearing is about transitioning the U.S. response to the global AIDS crisis through PEPFAR from an emergency program to a sustainable one, because we recognize that the AIDS virus will be in our midst for generations to come. Our response to HIV/AIDS must now expand from a model designed to help get the emergency room up and running to one where the community clinic can successfully keep people out of the emergency room in the first place.

Of course, HIV-affected people must have access to antiretroviral drugs, but no one can survive on drugs alone. Just like everyone else, people who are living with HIV/AIDS—especially those who have gotten drugs to keep their infections in check—need good nutrition, clean water, vaccines, pre- and post-natal care for mothers and children and prevention, care and treatment for at the other major health threats that they face.

Let's face it, we are in a struggle to beat HIV/AIDS for the long haul-just like our battles to overcome cancer and heart disease at home. Now that HIV/AIDS is treatable, it has become a chronic disease, and chronic diseases require functioning health systems, working every day. Clinics must be open, staffed and supplied—and that can't be done just for HIV alone. Health providers must be trained, supervised, supported and paid—and no one dreams that this could be an AIDS-specific cadre. Ministries of health and non-governmental organizations alike must function smoothly and efficiently, with solid leadership and management skills—and these must be generalized skills because the systems they must support are necessary for each and every health intervention.

This is why beating HIV/AIDS demands more than HIV-specific prevention, care and treatment programs operating in isolation from other global health interventions. This is why the delivery of all essential health care services through strong and efficient health systems is necessary for the fight against AIDS. This is why greater integration and coordination of PEPFAR programs with other global health programs and services is the single-most important step the U.S. can take right now to maximize the program's effectiveness in the future. I call on Congress to make sure that this is supported and encouraged in your reauthorization bill.

PEPFAR can and should be better integrated on four different levels:

- Internally between its own prevention, treatment and care programs;
- Laterally across other U.S. global health programs addressing issues other than HIV;
- Nationally through the strengthening of health systems and support of expanded health manpower in countries with high burdens of disease; and
- Externally through enhanced coordination between PEPFAR and other HIV- and non-HIV specific programs managed by focus country governments and by other international donors.

INTERNAL INTEGRATION

To date, PEPFAR's programs have been separated into the categories of prevention, treatment or care, with the focus and lion's share of funding largely on treatment. This approach has proven too rigid in some cases to effectively save lives.

Those who are at high risk of contracting HIV need to know how to stay HIV free and what treatment options exist if they do become infected. Those who are HIV-positive need to have access to the full range of prevention methods in order to improve their own health and to protect the health of those around them. It remains fundamentally true that treatment for people who are HIV-positive still needs to be expanded, but as we find that for every individual treated there are six new infections, it is clear that we will never be able to treat our way out of this epidemic. Prevention and treatment programs must work together, and I strongly support the recommendations you have heard from Dr. Gayle.

INTEGRATION AND COORDINATION ACROSS U.S. GLOBAL HEALTH PROGRAMS

Most people who are battling AIDS actually die from infections caused by other organisms who have found an open door due to HIV's suppression of the immune system; these are called Opportunistic Infections (OI's). Currently, tuberculosis (TB) kills about one-third of AIDS victims. Pregnant women who contract malaria are at greater risk of HIV infection and those who are HIV-positive are at greater risk of malaria. And as I have noted, most children dying with HIV die as a direct result of common childhood infections.

By only addressing the HIV/AIDS-specific aspects of the health of a person with co-infections and multiple susceptibilities, PEPFAR is, in some ways, saving lives only to leave them vulnerable to death in short order from other causes whose effects could have been minimized or eliminated with a more thoughtful and thorough programmatic response. A more comprehensive view of the disease and the appropriate response is needed. PEPFAR programs must have explicit linkages between their services and those other critical global health programs that focus on other diseases and health conditions.

You have already heard from Dr. Gayle concerning the ways in which CARE integrates HIV/AIDS programs with other health and development efforts. We are proud to have CARE as a member organization of the Global Health Council. Family Health International (FHI), another of our member organizations, has also demonstrated the positive impact of an integrated response. One such model addresses the close link between HIV prevention and reproductive health services. The model includes pre- and post-test counseling of family planning clients, rapid on-site HIV testing of family planning clients and family planning counseling to HIV positive clients. This includes counseling on diet, exercise, medical care and psycho-social support. It also integrated family planning into PMTCT sites. FHI's research has shown that using this approach can avert almost 30% more HIV-positive births than just HIV counseling and testing along with nevirapine treatment.

A number of Global Health Council members are engaged with RAPIDS—a PEPFAR funded project that covers 53 districts in Zambia to provide home- and community-based care for people living with HIV/AIDS and support for orphans and vulnerable children through a coordinated response. In this example of successful coordination across U.S. programs, USAID, CDC, DOD, Peace Corps and the State Department have developed an intense, integrated and coordinated response in which it funded various organizations to take on projects that cuts across all sectors. The project funds agriculture, economic growth, health, education and democracy while at the same time aiming to scale up prevention, treatment and care. As a result, thousands of people living with HIV in Zambia are accessing basic health and development services, and not just anti-retroviral therapy.

When PEPFAR was first announced, it was with assurances that this funding would be additive to funds already in place for global health and international development efforts. Sadly, we are seeing instances, such as in Ethiopia, in which PEPFAR and PMI funds have increased, while maternal and child health funds have been significantly cut. Can the majority of that country's women and children who are dying despite being HIV-free, and whose deaths could readily be averted with effective, proven, low-cost interventions, consider this a victory?

STRENGTHENING HEALTH SYSTEMS AND BUILDING HEALTH MANPOWER

HIV/AIDS has taken weak health systems in the most highly afflicted countries, particularly those in sub-saharan Africa, and stressed them to the point of collapse.

A major contribution of PEPFAR was revealing the utterly desperate conditions of the world's national health systems. Once money and resources began to flow, we

quickly realized that we lacked the trained professionals to delivery life-saving interventions; we lacked the management systems to implement programs and handle large infusions of resources—nearly every link in the health system left something to be desired. Weak health infrastructure and lack of an adequate human resource supply in developing countries limit the ability to support the integration and coordination of HIV/AIDS services.

While there is much to be done, perhaps the most pressing issue is the supply, type and training of health workers, particularly in the areas of expanding prevention services and detecting opportunistic infections. As the Institute of Medicine (IOM) recommends, PEPFAR must contribute to strengthening health systems and adequately train and support critically needed new health workers.

EXTERNAL COORDINATION BETWEEN PEPFAR AND NON-U.S. HIV- AND NON-HIV PROGRAMS

Coordination is absolutely necessary within programs of the U.S. Government. It is also essential with the governments of focus countries if we are to continue to build upon PEPFAR's successes. According to the IOM's report on PEPFAR, country teams "have been largely successful in aligning their plans" with a recipient country's national HIV/AIDS strategies. Serious concerns remain, however, about ensuring that the siren call of available PEPFAR resources doesn't result in situations where national HIV/AIDS strategies become seriously misaligned in proportion to countries' specific disease burdens.

When lives are at stake every dollar has to count. The U.S. Government also must take care to chart whether other public or private donors are investing in the same kinds of programs and in the same places as PEPFAR so that duplication—or worse, destructive competition—is avoided.

Any discussion about vital coordination between PEPFAR and other HIV/AIDS efforts is incomplete without mention of the other cornerstone of the global response to this pandemic: the Global Fund to Fight AIDS, TB and Malaria. Early years saw aspects of unfortunate competition between PEPFAR and the Global Fund. I applaud Ambassador Dybul for his efforts to assure closer coordination and cooperation with the Global Fund, and encourage efforts to assure that this continues and is expanded, since each of these mechanisms has its own particular strengths and advantages.

Successful multi-donor coordination on HIV/AIDS programs is not only possible, it makes for better programs. In Malawi, the UK's Department for International Development, the Global Fund to Fight AIDS, TB and Malaria and Malawi's Ministry of Health together designed the Emergency Human Resource Plan to build human resource capacity to address the severe HIV/AIDS crisis in the country. This joint planning and coordination helped Malawi to double its output of nurses in just three years and increase pre-service training for doctors. The strategic coordination avoided duplicative efforts, allowing the program to address a wide range of problems related to health systems.

LOOKING FORWARD

Even with its remarkable accomplishments over the past four years, PEPFAR faces an uphill battle against a virus that manages to stay ahead of the world's best efforts to defeat it. Just last week we heard about the failure of what had been considered our most promising vaccine candidate. No doubt, more disappointments will follow. This will be a long struggle requiring persistence and patience.

As PEPFAR evolves with Congress's oversight, a number of issues must be addressed. First, the structure of U.S. global health assistance must be seriously reviewed and, I would recommend, redesigned. Each agency currently working as a part of the U.S. global AIDS response has a separate funding and procurement mechanism, different benchmarks for reporting, and different targeted communities. Under the current model, coordination and integration of HIV/AIDS is more difficult than it needs to be. Congress should take steps to correct this.

Congress must also assure that health systems and health manpower development are front and center in expanded efforts to address HIV/AIDS and other major causes of ill-health and death in highly affected countries.

Finally, the U.S., other donors and national governments must take under serious consideration the financial implications of a sustainable response to global AIDS, specifically, and basic health more broadly. While U.S. funding for global AIDS grew from $125 million in 1997 to $5.4 billion in 2007, it still remains below the levels needed for fully scaling up prevention and treatment in the focus countries, much less the need for HIV/AIDS services in non-focus countries where millions of people are infected or at-risk. Treatment costs will rise with the need for second-line drugs

and HIV-positive individuals living longer and requiring a wider array of health services. Effective and widespread prevention services will add significant costs.

This need for expanded funding will continue from a finite pool of resources. Still, the funding currently available for global AIDS programs dwarfs the U.S. investments currently made in other global health programs. For example, USAID's child and maternal health and reproductive health accounts have remained at around $360 million and $400 million a year respectively, and yet three times as many children and women die globally each year from non-HIV related causes than from AIDS. Resource constraints as well as policy restrictions have impeded the successful "wrap around" of non-HIV services with HIV services.

Increased support for global AIDS programs must not come at the expense of other global health programs if we are to achieve both the goal of establishing an effective HIV/AIDS program and the goal of building comprehensive and efficient national approaches to all major global health threats.

CONCLUSION

The President's Emergency Plan for AIDS Relief may be relatively new, but the fight against the global spread of HIV/AIDS is not. We have reached a point where the emergency response is still necessary but no longer sufficient in our fight against HIV/AIDS. HIV/AIDS is intricately linked with other diseases. To effectively combat this pandemic, we must expand our response, and a comprehensive approach to global health in developing countries is needed to do that successfully.

Today, I have proposed steps that could be taken in the near future to strengthen PEPFAR by better integrating PEPFAR services internally, across U.S. global health programs, with national health systems, and with external partners addressing HIV/AIDS in the developing world. We can improve upon the lessons learned through PEPFAR to improve our global AIDS response and reverse the HIV/AIDS pandemic.

In the long term, I urge Congress and the Administration to also consider the role of PEPFAR in the context of developing a comprehensive U.S. strategy for addressing all critical global health issues. The Global Health Council and our members stand prepared to help address the realities in which a third of the world's people live—and in which a disproportionate number die.

Thank you again for the opportunity to testify before you today. I welcome your questions.

Mr. PAYNE. Thank you very much. Dr. Mukherjee.

STATEMENT OF JOIA S. MUKHERJEE, M.D., MPH, MEDICAL DIRECTOR, PARTNERS IN HEALTH, ASSISTANT PROFESSOR OF MEDICINE, HARVARD UNIVERSITY

Dr. MUKHERJEE. Thank you, Congressman Payne. I would like to thank Chairman Lantos, Ranking Member Ros-Lehtinen, and the members of this Committee on Foreign Affairs, and particularly Mr. Payne and Mr. Smith for their leadership on the Africa Subcommittee.

I actually am here today representing Partners In Health, a nongovernmental organization for which I have served as the Medical Director for 8 years. Partners In Health has medical projects in Rwanda, Lesotho, Malawi, Haiti, Peru, Russia, and Mexico, as well as an HIV program in the United States.

We are a PEPFAR-recipient organization, particularly in Haiti, where we are receiving money directly from PEPFAR.

I want to talk specifically about my experience as the Medical Director of Partners In Health, and also as a clinician who works in these resource-poor settings.

For the leading infectious global killers—HIV, TB, and malaria—most experts agree that care should be delivered in the public sector and provided as a public good, rather than a commodity. Yet the public sector is woefully, inadequately resourced for the provi-

sion of basic health services, let alone the care of complex chronic diseases.

The economic structure of post-Colonial Africa was based on loans from the World Bank and the International Monetary Fund. With these loans came conditions called structural adjustment.

The purpose of these programs—structural adjustment—was to minimize government spending, thought to be bureaucratic, inefficient, and corrupt; and to, rather, invest money in the private sector, ostensibly to move these countries to market economies.

Whether this concept, these structural-adjustment programs resulted in movement toward market economies is not for me to judge. In the words of the *Star Trek*'s Dr. Bones, "I am a doctor, not an economist." But I can assure the members of this committee that this strategy, these structural-adjustment programs, resulted in the massive disinvestment in the health and education sectors, leading poor countries to have per capita health spending on the order of $2 to $5 per year. This health budget includes public sector employee compensation, money for essential medicines, and the building and maintenance of health infrastructure.

To compensate for this woefully inadequate funding for health, user fees were imposed at the behest of the Bank and the International Monetary Fund as a cost recovery mechanism to fund the health sector. But in extremely poor, often non-cash economies, such fees serve as an enormous barrier to care.

The confluence of these factors—underpaid staff, poor infrastructure, a lack of essential medicines and supplies, and prohibitive user fees—result in an oft-seen and grotesque sight: Public clinics that stand empty in the worst epidemic in the history of mankind.

Equally tragic are countries such as Malawi, where there are no user fees and clinics are full but totally dysfunctional; lacking access to the tools of their trade, and able to do no more than minister over the dying, despondent health professionals have fled their country to work in the United States and Europe, leaving only 350 Malawian physicians to care for a population of 16 million.

AIDS has not syphoned money away from these health systems. There is no money to syphon.

Let me illustrate with an example of my work, and the work of Partners In Health, an NGO affiliated with Harvard Medical School and the Harvard School of Public Health, the strategy that we have used to strengthen health systems with money for HIV.

Partners In Health was one of the first programs to provide highly active anti-retroviral therapy free of charge in a research-poor setting. In Haiti, where we had worked since 1983, we were able to successfully use the AIDS cocktail in 1998, just 2 years after it was available to treat patients in the United States and Europe. All of those patients, carried in on stretchers then, are still alive today. Not only are they alive, but they are living well; they are farming their fields, and they are caring for their children. This was a small initiative, only 60 patients between 1998 and 2001. But when multi-lateral and bilateral monies for AIDS treatment became available, we made the conscious decision that in order to get these lifesaving medicines and comprehensive programs, in-

cluding prevention and care, to all of those who needed them, we would have to deliver this care through public clinics.

In the town of Hinche, Haiti, the national HIV/AIDS program called for three people in the public clinic to be trained in the pre- and post-test counseling of HIV. This town has a population of 70,000, and had both a hospital and an outpatient clinic which stood empty. The first time I visited, they had seen 10 patients in 1 day, and there were three inpatients in a 60-bed ward.

Over the first year of HIV testing that was done with PEPFAR and Global Fund monies, only 43 cases of HIV were found, in a town that we anticipated 1500 people were in need of anti-retroviral therapy.

Two things about this example were striking. First of all, the low rate of uptake of testing. Secondly, the fact is that those 43 percent of people who were positive were 25 percent of all those tested. Through the entire year, only 176 people came forward for HIV testing. Some said this was due to stigma, others to voodoo and witchcraft; but what we knew is that the health system was not serving the people who lived in the town of Hinche. And they had absolutely no reason to think if they came to this clinic, they would get care.

The reality is that in poor countries, people come to clinics because they are ill, not because they want to know their HIV status. Seeing this situation in the town of Hinche prior to the arrival of funds from PEPFAR to actually provide programmatic support rather than just testing, we realized that this program, these HIV programs, would only work if they were integrated within primary healthcare. A full general clinic is the best place to find HIV cases, to say nothing of the fact that the availability of general health services will have a far bigger impact on the health of the community.

With our PEPFAR monies, Partners In Health supported the Ministry of Health clinic in Hinche, including refurbishing wards, providing essential drugs and supplies, steady power, telecommunications, and improved health worker salaries. We worked with the government to waive user fees for all patients with HIV, tuberculosis, for all children under five, for all pregnant women, and minimized user fees for other patients.

The ministry hired new clinical and administrative staff, which we worked with to train. We increased the compensation of health workers so that they could spend their full day in clinic, and did not have to supplement their salary by having a private chamber. We trained a cadre of community health workers to perform active case finding for vulnerable families, to deliver HIV and TB treatment in the home, and to provide psycho-social support to patients.

Needless to say, the clinic, with this bolstered support, had a skyrocketing rate of utilization of services. Today that very clinic sees 300 patients a day, and performs 600 HIV tests per month.

Of the 8,500 tests that were performed last year, 5 percent were positive, meaning that HIV testing is now being used as a screening test, and we can provide prevention and education about abstinence, fidelity, and condom use to those people who are not yet infected.

Today, more than 1,000 people are on anti-retroviral therapy in Hinche, and are followed by the Ministry of Public Health; and more than 400 people a year have been diagnosed and treated and cured from tuberculosis.

The whole system, let alone AIDS case detection, treatment, and prevention, has been strengthened as a result of this funding for AIDS.

In the context of this program implementation, we must move from emergency relief to long-term sustained commitment, to creating programs that are locally run and managed. To develop an adequate public-sector response to the challenge of the HIV/AIDS pandemic, we should work together with the public health sector to strengthen these systems overall.

It is important to adequately train, retain, and compensate workers. Yet offices, country offices of PEPFAR still hold to the constraint that is rooted in the United States Foreign Assistance Act, that PEPFAR money cannot be used to compensate public-sector workers. This is simply not true.

Currently, many PEPFAR-funded projects in the field are indeed providing salary support to public-sector workers involved in delivering AIDS care. Some experts estimate that 20 percent of PEPFAR funds are spent for the support of public sector, including salary.

However, it is often the case that interpretations of the U.S. Foreign Assistance Act locally result in prohibitions on public-sector spending. Donors, NGOs, universities, and governments must work together to build sustained public health infrastructure and it is imperative that the responsibility for these programs be transferred to the public sector.

There are more than 6–7 million people today who need antiretroviral therapy, and fewer than 3 million of them are receiving it. The setup phase of PEPFAR has indeed been successful. Our efforts and the efforts of the U.S. Government have been laudatory. But with the White House's announcement of $30 billion for the PEPFAR reauthorization, and a target of only 500,000 new people receiving treatment in 5 years, PEPFAR will hardly have the visionary impact that was planned at its inception, and that has characterized its record to date.

With these small targets, we are not building. We are simply sustaining work that is less than half done. In the next 10 years, with the goal of attaining universal access to HIV care and treatment, 10–12 million people will need to be started on antiretroviral therapy. Given that the GDP of the United States is fully one third of the world's total resources, it is reasonable to expect the United States to support one third of the cost of systems to deliver treatment to these patients. This indeed was the goal of PEPFAR in its first inception: Targeting the U.S. resources to cover the cost of treating 2 million patients in the first 5 years.

For the reauthorization of PEPFAR to continue in this generous and fair vein of 33 percent of the global AIDS commitment, we would need to cover the cost of 4 million people in treatment, not 2.5 million, as currently proposed. To do this will take 50 billion, not 30 billion, U.S. dollars over the next 5 years.

Today we have a choice that will clearly shape the global epidemic and the view of the generosity and fairness of the United States throughout the world. I urge you to build on the successes of PEPFAR, and to use the AIDS crisis to examine and address the illness and suffering throughout the world; not to preserve the first 5 years of PEPFAR in the museum of unrealized possibilities, but rather as the beginning of a movement to strengthen health systems as a response to combat the worst epidemic in the history of mankind.

Thank you.

[The prepared statement of Dr. Mukherjee follows:]

PREPARED STATEMENT OF JOIA S. MUKHERJEE, M.D., MPH, MEDICAL DIRECTOR, PARTNERS IN HEALTH, ASSISTANT PROFESSOR OF MEDICINE, HARVARD UNIVERSITY

HEALTH SYSTEMS STRENGTHENING AND THE AIDS PANDEMIC

The long-awaited availability of money for HIV prevention, care, and treatment in resource-poor settings has resulted in the real possibility of stemming the enormous death toll of HIV. However, due to decades of health system impoverishment, sickness and death among all cadres of workers due to HIV, and the flight of educated people from the developing to the developed world, there are few trained health professionals who can implement and sustain these large scale programs. This situation has been called the "healthcare worker crisis." Yet to proffer the simple equation—*"AIDS money is greater than the capacity of professionals to use it"*—yields just a pinhole view of a much larger landscape. In fact, the AIDS pandemic has done nothing if not lay bare the fact that health systems—in terms of personnel, equipment, medicines, and physical infrastructure—in many developing countries were never adequate to address the basic primary health care needs of the population , let alone address a new, chronic, infectious disease—AIDS and its fueling of the tuberculosis pandemic. People in poor countries understand this. In Rwanda, our patients offer the phrase "imboni ibibazo"—as a description of the AIDS pandemic—a lens through which we see reality and the larger context.

It is to this larger context to that AIDS has drawn our focus: developing countries bear 90 percent of the global burden of disease armed with only 20 percent of the world's GDP and 12 percent of the world's health expenditures to combat this burden.[1] Africa is particularly hard-hit, bearing fully one-quarter of the world's disease burden with 3 percent of the global health workforce, who are paid less than 1 percent of global health expenditures.[2] With such paltry resources available in these settings, how do people get care? The answer is that they do not. For this and many other reasons, life expectancy in Lesotho is 35.1 years (compared to 76.7 years in Cuba);[3] in Rwanda,203 children per 1,000 die before their fifth birthday (compared to 8 per thousand in the United States) and in Malawi, 1800 women die in childbirth for every 100,000 live births (as compared with 2 in the Sweden).[4] These rates are not unique across the continent. Some of this morbidity and mortality is AIDS-related, but much of it can be traced to inadequate health systems.

When people in resource-poor settings do access health care, approximately 60% of all health expenditures are out-of-pocket payments to private pharmacies or clinics. For the leading infectious global killers—HIV, TB, and malaria—there is no question that care should be delivered within the public sector and provided as public goods rather as commodities; the control of tuberculosis, an airborne disease, has long been seen as a public good. Yet the public sector is absolutely inadequately resourced for the provision of basic health services, let alone chronic care for complex diseases. The majority of foreign aid directed to post-colonial African countries took the form of conditioned loans that were spent building market economies rather than investing in the public sector. These structural adjustment programs resulted in massive disinvestment and neglect of the health and education sectors. National health budgets were set at shockingly low levels, on the order of $2–$5 US per capita, and included limits on the number of and compensation for public employees as well as little money for essential medicines or building and maintenance

[1] Pablo Gottret & George Schieber, *Health Financing Revisited: A Practitioner's Guide* (The World Bank 2006).

[2] *World Health Report 2006: Working Together for Health* (WHO, Geneva, 2006).

[3] http://www.unicef.org/infobycountry/lesotho__statistics.html Accessed September 18, 2007.

[4] http://www.unicef.org/infobycountry/malawi__statistics.html Accessed September 18, 2007

of health infrastructure. Countries subjected to these fiscal constraints had few options for responding to escalating public health needs.[5] User fees for health services were imposed at the behest of the World Bank and the International Monetary Fund. But in extremely poor, often non-cash economies, such fees serve as an enormous barrier to accessing care. The confluence of inadequate numbers of underpaid staff; poor infrastructure; a lack of medicines and supplies; and prohibitive user fees result in an oft seen and grotesque sight: public clinics standing empty in the midst of the worst epidemics in the history of mankind. Equally tragic are countries such as Malawi where there are no user fees for health care and clinics are full but completely dysfunctional. Lacking access to the tools of their trade and able to do no more than minister over the dying, despondent health professionals have leave and their country to work in Europe or the United States leaving only 350 physicians to care for a population of 16 million.

New investments in global health, including the President's Emergency Plan for AIDS Relief (PEPFAR), have given us the opportunity to treat and prevent HIV in resource-poor settings. Monies are available for drugs, for laboratory tests, and for prevention programs. But can and should new monies have a wider impact, beyond simply getting AIDS patients onto treatment? The answer is yes. Unequivocally, yes. However, the money must be used strategically—not just to fund "vertical" HIV programs (clinics and services that provide care for only one disease such as TB or HIV) but to support the rehabilitation and bolstering of public health systems. A commitment to primary health is critical, as HIV programs do not work in a vacuum: the majority of people presenting to clinic, especially in rural areas, come because they are sick, not because they want to know their HIV status. Health facilities must be accessible, well-stocked, and reliable, providing decent diagnosis and treatment of common diseases, before widespread HIV testing can occur.

Let me illustrate with an example from the work of Partners In Health, an NGO affiliated with Harvard Medical School and the Harvard School of Public Health. PIH was one of the first programs to provide antiretroviral therapy free of charge in a resource-poor setting. Haiti, where we had been working since 1983, is the poorest country in the western hemisphere and also has the highest HIV, TB, and malaria prevalence and maternal and child mortality rates; life expectancy hovers around 52 years.[6] Despite these grim statistics, we were able to successfully acquire medicines and launch comprehensive AIDS treatment efforts just two years after antiretroviral drugs became available in the first world. Our initial successes were bolstered by the advent of multilateral and bilateral monies for AIDS treatment, and in 2002 PIH began to expand its services throughout central Haiti by partnering with Ministry of Health clinics and hospitals.

In the town of Hinche, Haiti, the national HIV/AIDS plan called for three people in the public clinic to be trained in pre- and post-test counseling for HIV. The town is the capital of the Central Department of Haiti and is home to about 70,000 people. Hinche has a hospital and outpatient clinic, both of which stood nearly empty when we first visited. The clinic was seeing 10 patients per day, and the hospital had 3–6 inpatients in its 60-bed facility. In the first year of the testing initiative, only 43 cases of HIV were found—about 25% of the 176 people tested.

Two things about this example are striking. First of all, it was estimated that a minimum of 1,500 people were living with untreated HIV in the area; therefore, identifying only 43 new cases is appalling. One would think that the patients would be breaking down the barricades, since it was widely known that antiretroviral therapy was available free of charge. Second, the prevalence of AIDS in central Haiti is 2–4%. If 25% of the tests performed were positive, this is an indication that the test was not being offered broadly, as a screening tool, but, instead, was being offered only to those patients suspected to be infected. Broad screening is important because it offers avenues for intervention through prevention education. It also allows for earlier detection—and thus treatment—of HIV.

Recall that PIH had committed to partnering with the public sector in scaling up its work with the advent of Global Fund and PEPFAR monies. Seeing the situation in the town of Hinche prior to our arrival was instructive: we realized that AIDS programs would only work if they are integrated with primary health care. A full general clinic is the best place to find HIV cases, to say nothing of the fact that the availability of general health services will have a far bigger impact on the health of the community.

---

[5] The negative impact World Bank and IMF macroeconomic structural adjustment policies was compounded by poor governance decisions, corruption, and misplaced spending priorities in many developing countries.

[6] http://www.unicef.org/infobycountry/haiti__statistics.html. Accessed September 18, 2007.

With these lessons in mind, PIH's support of the facilities in Hinche included refurbishing wards; providing essential drugs, supplies, and steady power; and improving telecommunications capacity. We waived user fees for HIV patients, TB patients, children under 5, and pregnant women and minimized fees for all other patients. We hired and trained new clinical and administrative staff and also increased the compensation of existing Ministry of Health staff. We trained a cadre of community health workers to perform active case finding of vulnerable families, deliver HIV and TB treatment in the home, and provide psychosocial support to all patients. Needless to say, the bolstered clinic, coupled with increased community support, resulted in skyrocketing utilization of services. Today the Hinche clinic sees 300 patients per day and performs 600 HIV tests per month. Out of the 8,500 tests performed last year, only 5% were positive. More than 1,000 HIV-positive patients in Hinche, more than a third of whom are on ART, are now being followed by PIH. More than 400 patients have been diagnosed and treated for tuberculosis. The whole health system, let alone AIDS case detection and treatment, has been strengthened as a result of interest in and funding for AIDS. More recently, we constructed an on-site training center that has become a local, national, regional, and international hub for training on the provision of AIDS care in resource-poor settings; at least in rural central Haiti, the healthcare worker crisis is no longer a pressing issue for us.

We know that success is possible, but the constraints are many. We are convinced that health systems strengthening is the only way to address not only the AIDS and TB pandemics but other health crises as well. In the context of HIV program implementation, we must move from "Emergency Relief" to long term, sustained commitment to creating programs that are locally run and managed. To develop an adequate public sector to respond to the challenge of the AIDS pandemic should be the goal of such assistance. However, to assist in building a public sector response, it is important to adequately train, retain and compensate health workers. Yet, country offices of PEPFAR still hold to the constraint, rooted in the Foreign Assistance Act, that PEPFAR monies cannot be used to compensate public sector workers. This is not true. Currently, many PEPFAR funded projects in the field are, indeed, providing salary support for public sector workers involved in delivering AIDS care. Some experts estimate that 20% of the PEPFAR budget is spent on support for the public sector, including salaries. However, it is often the case that the interpretations of the Foreign Assistance Act result in prohibitions on public sector support. Thus, in a multitude of cases, PEPFAR money funds the private, NGO sector resulting in the development of parallel health systems—charity and public and further impoverishing the public health system which is the most sustainable and widespread means of delivering health care to the poor. If donors, NGOs, universities, and governments are to work together to build or rebuild sustainable public health infrastructure, it is imperative that the responsibility for and the funding of these programs be gradually moved to the public sector. African leaders signed a pledge in Abuja, Nigeria in 2001 to commit 7% of their GDP to health; in a poor country such as Rwanda that is experiencing a growing economy, it is possible to imagine that, with time, the government will be able to cover much of the cost of a functional public health system. In countries like Haiti, however, 7% of GDP will not soon cover the cost of a functional health system. International donor money must help put in place the systems that can address not only HIV but also other diseases and primary health goals. Why not use the AIDS crisis to build something that will be sustained for generations to come?

In its first years, much of PEPFAR money was allocated to non-governmental organizations (like mine) with the notion, perhaps, that governments are inefficient or corrupt. The money was, based on the title of the program, geared toward and emergency. Today, programs are established, money has been well used, and people all over the world are receiving care within government driven national plans. It is time to shift the focus of aid to a second phase where our response is made sustainable. With nearly 3 million people on HIV treatment in resource-poor settings around the world, it is clear that the public sector must shoulder the responsibility for treating and monitoring this and other chronic diseases and fully ensconcing AIDS treatment into the delivery of primary health care services.

To close, I'd like to make a few general comments related to PEPFAR to improve its overall impact and effectiveness in the next phase. We applaud the new financial resources that have been dedicated to helping address the HIV/AIDS crisis thus far. The achievements which have made in getting more patients into AIDS prevention and treatment programs are laudatory. However, it behooves us now to be more ambitious. There are more than 6 to 7 million people today alone who need ART and fewer than 3 million of those are receiving it. The set up phase has been successful, but if we keep funding at this level and targets for patients on treatment low, we

are not building; we are sustaining work that is less than half done. In the next ten years, with the goal of attaining universal access to treatment, 10–12 million people will need to be started and maintained on treatment. The PEPFAR reauthorization announcement from the White House only included a target of an additional 500,000 patients to be put on treatment for the next five years. Given that the GDP of the US is fully 33% of the world's total resources, it is reasonable to expect the US to support 33% of the cost of systems to deliver treatment to these patients. This, indeed, was the goal of PEPFAR in its first iteration, targeting the US resources to cover the costs of treating 2,000,000 patients in the first five years. For the re-authorization of PEPFAR to continue in this generous and fair vein of 33% of the global AIDS commitment would mean to cover the cost of 4,000,000 people in treatment end of 10 years, not 2,500,000 as currently proposed. The target of 500,000 additional people in treatment and only 30 billion USD proposed for the second five years is less than level funding the United States' most successful international aid program. Thus, to meet the needs of the countries suffering, hold up the US share of international aid and build and sustain health systems to deal with this crisis, at least 50 billion USD over the next five years is necessary.

Today we have a choice that clearly sculpts the global epidemic and the view of the generosity and fairness of the United States throughout the world. I urge you to build on the successes of PEPFAR, to use the AIDS crisis to examine and address the illness and suffering throughout the world and not to preserve the first five years of PEPFAR in a museum of unrealized possibilities in addressing for the long term, the worst epidemic in the history of mankind.

Mr. PAYNE. Thank you very much. Dr. Hearst?

STATEMENT OF NORMAN HEARST, M.D., MPH, PROFESSOR OF FAMILY AND COMMUNITY MEDICINE AND OF EPIDEMIOLOGY AND BIOSTATISTICS, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF), SCHOOL OF MEDICINE

Dr. HEARST. Thank you, Mr. Chairman. We are here today to talk about making PEPFAR sustainable. And the key to sustainability must be prevention.

As we have already heard this morning, we cannot treat our way out of this epidemic. Despite our best efforts, at least five people are being infected with HIV in Africa for every one that we are starting on treatment. And, treatment or not, these people will eventually die of AIDS.

For prevention, it is fundamental to distinguish between concentrated and generalized HIV epidemics. These are different situations that require very different strategies. In most countries, HIV is mainly transmitted in high-risk settings, including men who have sex with men, injecting drug users, and commercial sex, so that is where you need to do prevention.

But in generalized epidemics, transmission is widespread in the heterosexual population, so you can't focus only on high-risk groups.

Just a few countries in Eastern and Southern Africa have this pattern. But these countries, because of their very high infection rates, account for most of the world's HIV infections. And most PEPFAR priority countries have generalized epidemics, which is why they were chosen as priority countries in the first place.

Five years ago, I was commissioned by UNAIDS to conduct a technical review of how well condoms have worked for AIDS prevention in the developing world. My colleagues and I collected mountains of data, and here is what we found.

First, condoms are about 85 percent to 90 percent effective for preventing HIV transmission for individuals who use them all the time. We then looked at whether condoms have been successful as

a public health strategy, something very different from individual effectiveness. Here we found good evidence for effectiveness in concentrated epidemics.

For example, condoms helped control HIV among gay men in places like my home town, San Francisco, and epidemics driven by commercial sex in places like Thailand.

We then looked for evidence of a public health impact for condoms in generalized epidemics. And to our surprise, we couldn't find any such evidence. No generalized HIV epidemic has ever been rolled back by a prevention strategy based primarily on condoms. Instead, the few successes in turning around generalized HIV epidemics, like in Uganda, were achieved not through condoms, but by getting people to change their sexual behavior.

UNAIDS did not publish the results of our review, but we did ourselves. And I would like to have this article summarizing our findings entered into the record. These were not just our hair-brained conclusions. A recent consensus statement in *The Lancet* was endorsed by over 150 AIDS experts, including Nobel laureates, the President of Uganda, and officials of most international AIDS organizations. Dr. Gayle and I are both co-authors of this article. And I would also like to have this entered into the record. Both of these articles are in your packets.

Mr. PAYNE. Without objection, both will be entered into the record.

Dr. HEARST. This statement endorses the ABC approach to prevention: Abstinence, be faithful, and condoms. It goes further. It says that in generalized epidemics, the priority for adults should be B, limiting one's number of partners. The priority for young people should be (A) not starting sexual activity too soon. Condoms should be the main emphasis only in settings of concentrated transmission, like commercial sex and known discordant couples.

PEPFAR follows this ABC approach. Last year I was on a team reviewing PEPFAR's prevention activities in three African countries for the Office of the Global AIDS Coordinator. We found a strong portfolio of prevention activities that included a mix of A, B, and C activities, although personally I would have liked to see even more of the B.

This contrasted with other funders that often officially endorse ABC, but in practice continue to put their money into the same old strategies that have been so unsuccessful in Africa for the past 15-plus years: Condoms, HIV testing, and treating other sexually transmitted infections.

Now, one might well ask why they continue to do this, despite all the evidence. It is difficult to convey the tremendous inertia for doing the same old things.

First, they are relatively easy to do. Second, many of the implementing organizations and individuals have backgrounds in family planning. They are very good at things like distributing condoms and providing clinical services, but they may not have a clue how to try to go about getting people to change their sexual behavior.

Third, decisions are often made, and when we talk about letting people make decisions locally, remember this: By expatriates, Americans and Westernized locals who have been trained in rich

countries, and who have internalized prevention models that are appropriate to concentrated, not generalized, epidemics.

Finally, if you try to do a little bit of everything, expensive clinical services quickly eat up budgets, leaving little for the critical A and B of ABC. So for a lot of programs that say they are doing ABC, when you really look at it, 90 percent of their budget is going for other things. And yes, maybe they put up a billboard or two telling people to have fewer partners.

Let me close with a warning about ABC-plus, or moving beyond ABC, and diverting AIDS prevention funding to whatever good cause people are promoting. Always ask, Where is the evidence?

For example, I am all in favor of poverty alleviation. And CARE does great work, and I have worked for CARE, and I have donated money to CARE. But in most countries with generalized epidemics, the rich have higher HIV infection rates than the poor. Similarly for gender equity, many of the African countries with the best records in this regard, like Botswana for example, have the highest HIV infection rates.

We have heard a lot this morning about integration, wraparounds, and removing funding earmarks to give local flexibility. And I understand the arguments for all of these things. But I am worried about the results. This would almost certainly result in less, not more, focus on changing sexual behavior, the only strategy that has worked for AIDS prevention in generalized epidemics, and therefore would have the potential to do more harm than good.

Thank you very much.

[The prepared statement of Dr. Hearst and material submitted for the record follow:]

PREPARED STATEMENT OF NORMAN HEARST, M.D., MPH, PROFESSOR OF FAMILY AND COMMUNITY MEDICINE AND OF EPIDEMIOLOGY AND BIOSTATISTICS, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF), SCHOOL OF MEDICINE

We're here today to talk about making PEPFAR sustainable, and the key to sustainability must be prevention. We cannot treat our way out of this epidemic. Even now, five people are being infected with HIV in Africa for every one starting treatment. And treatment or not, these people will die of AIDS.

For prevention, it's fundamental to distinguish between "concentrated" and "generalized" HIV epidemics. These are different situations that require very different strategies. In most countries, HIV is mainly transmitted in high risk settings and groups, including men who have sex with men, injecting drug users, and commercial sex, so that's where you need to do prevention.

But in generalized epidemics, transmission is widespread in the heterosexual population, so you can't focus only on high risk groups. Just a few countries in Eastern and Southern Africa have this pattern. But these countries, because of their very high infection rates, account for most of the world's HIV infections. Most PEPFAR priority countries have generalized epidemics.

Five years ago, I was commissioned by UNAIDS to conduct a technical review of how well condoms have worked for AIDS prevention in the developing world. My associates and I collected mountains of data, and here's what we found.

First, condoms are 85–90% effective for preventing HIV transmission when used consistently. We then looked at whether condom promotion has been successful as a *public health* strategy—something very different from *individual* effectiveness. Here we found good evidence for effectiveness in concentrated epidemics. For example, condoms made an important contribution to controlling HIV among gay men in places like San Francisco and epidemics driven by commercial sex in places like Thailand.

We then looked for evidence of a public health impact for condoms in generalized epidemics. To our surprise, we couldn't find any. No generalized HIV epidemic has ever been rolled back by a prevention strategy based primarily on condoms. Instead, the few successes in turning around generalized HIV epidemics, such as in Uganda,

were achieved not through condoms but by getting people to change their sexual behavior.

UNAIDS did not publish the results of our review, but we did ourselves. I would like to have the following article entered into the record:

Hearst N, Chen S. Condoms for AIDS Prevention in the Developing World: Is It Working? Studies in Family Planning 2004;35:39–47.

These are not just our conclusions. A recent consensus statement in *The Lancet* was endorsed by 150 AIDS experts, including Nobel laureates, the president of Uganda, and officials of most international AIDS organizations. This statement endorses the ABC approach to AIDS prevention: Abstinence, Be faithful, and Condoms. It goes further. It says that in generalized epidemics, the priority for adults should be B (limiting one's number of partners). The priority for young people should be A (not starting sexual activity too soon.) C (condoms) should be the main emphasis only in settings of concentrated transmission, like commercial sex. I also ask that this article be entered into the record:

Halperin DT, Steiner MJ, Cassell MM, Green EC, Hearst N, Kirby D, Gayle HD, Cates W. The time has come for common ground on preventing sexual transmission of HIV. Lancet 2004; 364: 1913–1915.

PEPFAR follows this ABC approach. Last year, I was on a team reviewing PEPFAR's prevention activities in three African countries for the Office of the Global AIDS Coordinator. We found a strong portfolio of prevention activities that mixed A, B, and C (though, in my opinion, probably not enough B.) This contrasted with other funders that often officially endorse ABC but in practice continue to put their money into the same old strategies that have been so unsuccessful in Africa for the past 15 years: condoms, HIV testing, and treating other sexually transmitted infections.

One might ask why they continue to do this despite all the evidence. It's difficult to convey the tremendous inertia for doing the same old things. First, they're relatively easy to do. Second, many of the implementing organizations and individuals have backgrounds in family planning. They're good at distributing condoms and providing clinical services but may have no idea how to get people to change sexual behavior. Third, decisions are often made by expatriates and westernized locals trained in rich countries who have internalized prevention models from concentrated epidemics. Finally, if you try to do everything, expensive clinical services quickly eat up budgets, leaving little for the critical A and B of ABC.

Let me close with a warning regarding talk about "ABC plus" or "moving beyond ABC" and diverting AIDS prevention funding to whatever other good cause people are promoting. Always ask, "Where is the evidence?" For example, I'm all in favor of poverty alleviation. But in most countries with generalized epidemics, the rich have higher HIV infection rates than the poor. Similarly, for gender equity, many of the African countries with the best records in this regard (like Botswana) have the highest rates of HIV infection. Anything that dilutes the focus of AIDS prevention in Africa from changing sexual behavior may do more harm than good.

Condom Promotion for AIDS Prevention in the Developing World: Is It Working?

Norman Hearst and Sanny Chen

Two decades of experience and research provide new insights into the role of condoms for AIDS prevention in the developing world. This literature review and synthesis is based on computerized searches of the scientific literature and review of conference presentations, publications of national and international organizations, and popular media. Condoms are about 90 percent effective for preventing HIV transmission, and their use has grown rapidly in many countries. Condoms have produced substantial benefit in countries like Thailand, where both transmission and condom promotion are concentrated in the area of commercial sex. The public health benefit of condom promotion in settings with widespread heterosexual transmission, however, remains unestablished. In countries like Uganda that have curbed generalized epidemics, reducing the number of individuals' sex partners appears to have been more important than promoting the use of condoms. Other countries continue to have high rates of HIV transmission despite high reported rates of condom use among the sexually active. The impact of condoms may be limited by inconsistent use, low use among those at highest risk, and negative interactions with other strategies. Recommendations include increased condom promotion for groups at high risk, more rigorous measurement of the impact of condom promotion, and more research on how best to integrate condom promotion with other prevention strategies. (STUDIES IN FAMILY PLANNING 2004; 35[1]: 39–47)

As the effort to prevent the spread of HIV enters its third decade, it is appropriate to reassess what we have learned, particularly with regard to the use of condoms, the controversial mainstay of many AIDS-prevention programs. Opinions about condom use are not always based on evidence, but information has accumulated steadily. Although many questions remain about the promotion of condom use as a public health strategy for AIDS prevention, we now know a great deal more about the effectiveness of the method than we did two decades ago.

For condoms to work against HIV/AIDS, they must be effective, and sexually active people must use them. Many factors, including who uses them with which partners and how consistently and correctly they do so, determine their public health impact, as does the effect of condom promotion on other behaviors. Fortunately, we can now move beyond debating how well condom promotion might work to examining how well it has worked. The stories of countries with successful AIDS-control efforts and the role that condoms have played in these efforts are especially instructive, as are some examples of less successful experiences.

Norman Hearst is Professor, University of California, Box 0900, 500 Parnassus Avenue MU3E, San Francisco, CA 94143. E-mail: nhearst@itsa.ucsf.edu. Sanny Chen is Epidemiologist, San Francisco Department of Health.

Methods

This article is based on a review of condom promotion for AIDS prevention in the developing world conducted for the Joint United Nations Programme on HIV/AIDS (UNAIDS). Sources used include peer-reviewed scientific literature located by means of computerized searches, publications of UNAIDS and other international organizations, conference presentations, and national AIDS-control-program documents. Where appropriate, the authors also reviewed information from the popular press and the Internet. Data presented were selected based on their reliability and relevance, with priority given to rigorous scientific studies and public health efforts having sufficient documentation to determine the impact of condom promotion.

How Effective are Condoms?

"Efficacy" (also called "theoretical effectiveness" or "method effectiveness") refers to how well an intervention treats or prevents a condition when it is used perfectly. "Effectiveness" (or "use effectiveness") refers to how well it works in practice (Bretzman and Stanford 1994; Hearst et al. 2001). If the probability of transmission of HIV were reduced 100-fold when condoms are used perfectly, condoms would have an efficacy of 99 percent. If condoms as they are typically used were to cut HIV transmission by a factor of 10, they would have an effectiveness of 90 percent.

Measuring condom efficacy is nearly impossible. In theory, discordant couples (with one HIV-positive and one HIV-negative partner) could be monitored constantly to assure correct condom use, a control group could be allocated randomly not to use condoms, and transmission rates could be compared. For practical and ethical reasons, such a study will never be performed. Real studies measure effectiveness, usually by comparing discordant couples who report that they use condoms with couples who do not use them despite being urged to do so. These two groups differ: Compared with couples who use condoms, couples who do not use more drugs and alcohol (Allen et al. 1992; Weller and Davis 2002), have more sex partners (Allen et al. 1992), and may be younger or may more often engage in practices such as anal intercourse that facilitate HIV transmission (Hearst and Hulley 1988; Plummer et al. 1991).

Estimates of effectiveness from individual studies vary widely (de Vincenzi 1994; Davis and Weller 1999; Weller and Davis 2002). Differences may be due to random variation, to how correctly condoms were used and their use ascertained, and to other confounders. Several meta-analyses have attempted to combine the available data (Weller 1993; Pinkerton and Abramson 1997; Davis and Weller 1999; Weller and Davis 2002). The most rigorous of these estimated condom effectiveness to be 94 percent (Pinkerton and Abramson 1997). Two other recent meta-analyses yielded 87 percent and 80 percent, but improperly lumped all couples together in the analysis rather than stratifying them by study (Cooper and Hedges 1994; Petitti 1994; Davis and Weller 1999; Hearst et al. 2001; Weller and Davis 2002). In light of the conflicting numbers and methodological difficulties these studies present, the conclusion that condoms are roughly 90 percent effective in preventing HIV transmission, a figure close to their effectiveness for contraception, seems reasonable (Steiner et al. 2000; Weller and Davis 2002). Although condoms may rarely be permeable to virus-size particles, leakage through latex accounts for only a tiny fraction of condom failure (Carey et al. 1992; Lytle and Duff et al. 1997; Lytle and Routson et al. 1997; Carey et al. 1999; Lytle 1999; Ahmed et al. 2001). Most failure results from flow factors such as breakage, slippage, and improper use (NIAID 2001). These factors are similar whether condoms are used to prevent HIV infection or pregnancy.

Can People Be Convinced to Use Condoms?

The earliest evidence that people were using condoms in numbers sufficient to stop the spread of HIV came from studies of men who have sex with men. In many places, condom use quickly became the norm in this population, dramatically cutting incidence of HIV and other sexually transmitted infections (STIs) (Hessol et al. 1989; Catania et al. 1991). Condom promotion can also be successful among commercial sex workers; studies demonstrate high rates of use in many settings in Africa, Asia, and Latin America (Hanenberg et al. 1994; Levine et al. 1998; Meda et al. 1999; UMOH 2001b).

Promoting condoms to the general public is more difficult, however. Many governments, nongovernmental organizations (NGOs), and donors have tackled this challenge energetically. Measuring success is not simple. Numbers of condoms distributed indicate the scope of an effort but not how many people at high risk are using them. The Demographic and Health Surveys conducted in many countries ask respondents if they had a noncohabiting sexual partner in the past year and whether they used a condom at last intercourse with that partner. The resulting indicator approximates condom use in high-risk sex. Figures 1a and 1b show results for 19 African countries for young women and men, a particularly important group epidemiologically in terms of risk for HIV infection and behaviorally in terms of establishing patterns that may last a lifetime. Other studies confirm high prevalence of condom use with casual partners in various developing countries (Asiimwe-Okiror et al. 1997; Allen 2002; Brazilian Health Ministry 2002).

Condom-promotion strategies include encouraging demand, augmenting distribution channels, and lowering prices (UNAIDS 2000a). Distributing free condoms is most effective for high-risk groups like sex workers. Limited evidence concerning condoms given free of charge to the general public indicates that they often are not used (Hughes et al. 1995). One of the most successful strategies is social marketing (Soderlund et al. 1993; UNAIDS 1999a; Agha 2001; Agha et al. 2001; Price 2001; Bedimo et al. 2002). Subsidized condoms are sold at affordable prices and promoted under brand names using

Figure 1a Condom use at last high-risk sex in the past year among 15–24-year-old females, selected African countries, 2001

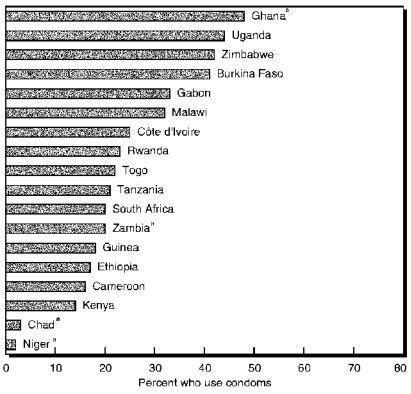
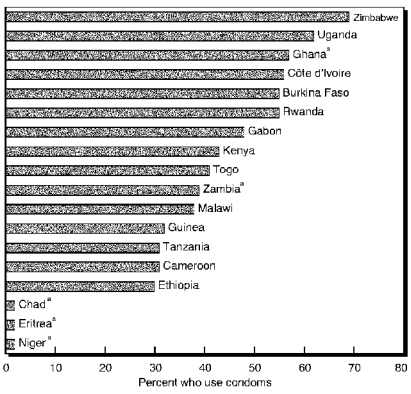


Figure 1b Condom use at last high-risk sex in the past year among 15–24-year-old males, selected African countries, 2001



* In both figures, data refer to years other than 2001, differ from the standard definition, or are based on only part of the country.
Source: UNICEF (2002).

the same advertising strategies as those used for other consumer products.

During the 1990s, condom distribution increased by 10- to 100-fold in many developing countries (Meda et al. 1999; UNAIDS 2000b; Kirungi 2001; Myer et al. 2001). Current numbers distributed, however, remain enough to cover only a small proportion of sexual encounters. Few people use condoms in steady relationships. In Nigeria, for example, only 2 percent of respondents report always using condoms with a spouse or "concubine," compared with 33 percent who say they use them with boyfriends and girlfriends and 67 percent who report that they use them with casual partners (Van Rossem et al. 2001). If condom use is high in casual sex but low with steady partners, its potential impact will depend a great deal on how much transmission occurs within each of these types of partnership.

The Condom Paradox

If condoms are effective and many people will use them, they might seem the ideal strategic choice for AIDS prevention. Unfortunately, the situation is not so simple. Although effectiveness and use are necessary conditions for a successful public health strategy against the spread of HIV, they are not sufficient. In many sub-Saharan African countries, high HIV transmission rates have continued despite high rates of condom use. In Botswana, for example, condom sales rose from one million in 1993 to three million in 2001 while HIV prevalence among urban pregnant women rose from 27 percent to 45 percent. In Cameroon, during the same period, condom sales increased from six million to 15 million while HIV prevalence rose from 3 percent to 9 percent (AIDSMark 2002). Of course, prevalence might have risen even faster without increased condom use, but no clear examples have emerged yet of a country that has turned back a generalized epidemic primarily by means of condom promotion.

This apparent paradox might be explained by the details of who uses condoms with whom. Even without condoms, only a tiny fraction of sexual encounters transmit HIV. Because preventing something that would not have occurred anyway is impossible, this fraction is the only number of encounters for which condom use matters for preventing HIV transmission. Condom use might be high in general but low among people at highest risk for HIV transmission (such as marginalized groups, people with STIs, or drug users). Conversely, even modest

condom use can have a substantial impact on transmission rates if concentrated among sex workers and men who have sex with men. Mathematical models of HIV transmission demonstrate that condom use in particular circumstances, such as when either partner has STI symptoms, can be more important epidemiologically than average population rates of condom use (Bracher et al. 2004).

Consistency of use is another problem: The use of condoms produces minimal benefit if it is not consistent. Many studies find that inconsistent users are at higher risk of HIV transmission than those who never use the method (Mann et al. 1988; Darrow 1989; Saracco et al. 1993; Deschamps et al. 1996; Taha et al. 1996; Ahmed et al. 2001), perhaps because their behavior is riskier in other ways. Mathematical models suggest that a small number of people who use condoms consistently can have a greater impact on reducing HIV transmission than can a larger number who use them inconsistently (Bracher et al. 2004). Consistent use requires not only long-term individual commitment but also a reliable distribution system that provides condoms to people who often lack other basic necessities (UNAIDS 2000a). As President Museveni of Uganda has stated, "In countries like ours, where a mother often has to walk 20 miles to get an aspirin for her sick child or five miles to get any water at all, the question of getting a constant supply of condoms may never be resolved" (Museveni 2000).

Learning from Success

In contrast to the discouraging global trend, some countries, including Thailand, Uganda, and some of their neighbors, have achieved notable success in AIDS prevention (UNAIDS 1999b). In Thailand, the spread of HIV began with a burst of transmission among intravenous drug users, but soon thereafter, 90 percent of transmission had become heterosexual (Hanenberg et al. 1994; Ford and Koetsawang 1999). Public health officials quickly realized that the country's large sex industry was playing a central role in the infection's spread and responded with a "100% Condom Program" that mandates brothel owners to enforce condom use in every paid sex act (Ford and Koetsawang 1999). Uncooperative owners are identified through STI surveillance among sex workers and clients and receive sanctions.

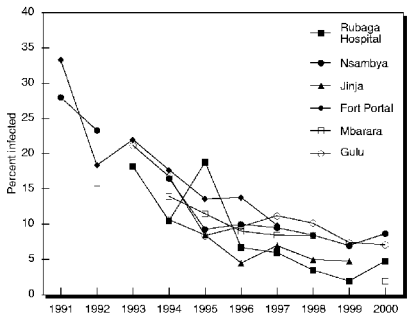
Condom use soon reached more than 90 percent in commercial sexual encounters (Hanenberg et al. 1994), and the proportion of men visiting sex workers fell by about half (Mills et al. 1997; Phoolcharoen 1998; UNAIDS 2002c; USAID 2002). The government did not directly discourage commercial sex, but mandatory condom use and the awareness of risk caused many men to give up paying for sex. Thai men also reduced the numbers of their unpaid casual partners (Mills et al. 1997). Rates of STIs fell rapidly (UNAIDS 2000b), and HIV incidence and prevalence are declining among both young men and pregnant women (Celentano et al. 1998; UNAIDS 2000b; Sharma 2001; Nelson et al. 2002).

Cambodia has the highest HIV rate in the Asia–Pacific region (Ryan et al. 1998; XIV International AIDS Conference 2002), with a high proportion of transmission occurring through commercial sex (Chanpong et al. 2001). Cambodia instituted a 100% Condom Program of its own, and condom distribution rose from 99,000 in 1994 to 16 million in 2001 (UNAIDS 2002b). STI rates among sex workers fell substantially (XIV International AIDS Conference 2002; Larivee 2002), and HIV prevalence in the general population has also started to fall (UNAIDS 2002a).

In the 1980s, Uganda had among the world's highest AIDS prevalence rates, and the country responded with a determined approach involving all sectors of society. More than 700 agencies in Uganda now work on AIDS prevention, ranging from churches to NGOs to the military (Green et al. 2002). An active support group for people with HIV encourages many Ugandans to speak openly of their HIV status. Consequently, more Ugandans than other Africans report that they know someone with HIV (Green et al. 2002), a strong predictor of changing behavior (Macintyre et al. 2001). Since peaking in the late 1980s, HIV incidence has fallen substantially (see Figure 2) (Stoneburner et al. 1998; Green et al. 2002), as demonstrated by surveillance among military recruits (UMOH 2001a), pregnant women (Stoneburner and Low-Beer 2002), and the general population (UMOH 2001b).

Unlike in Thailand, condoms were not central to the initial response in Uganda. Messages focused on delaying sexual debut, abstinence, being faithful to a single partner (called "zero grazing"), and condom use, roughly in that order (Green et al. 2002; USAID 2002). Large-scale condom social marketing did not begin until the mid-1990s (Green et al. 2002). By 1995, only 6 percent of Ugandan women and 16 percent of Ugandan men had ever used a condom; consistent use was found to be much lower (Green et al. 2002). Ugandans now use more condoms, particularly with casual partners, but this increase cannot be given credit for what happened earlier (Stoneburner and Low-Beer 2002). The main cause of falling incidence in Uganda was a substantial drop in numbers of casual sex partners, going from rates typical of the region to rates that are now much lower (Kilian et al. 1999; Green and Conde 2000; Stoneburner 2000; AGI 2002; XIV

Figure 2 HIV prevalence among pregnant women aged 15–19, Uganda, 1991–2000



Source: UMOH (2001a).

International AIDS Conference 2002; Green et al. 2002). For example, in 1995, only about 12 percent of Ugandan males and 5 percent of Ugandan females between the ages of 15 and 19 reported having had sex with a nonregular partner in the past 12 months, compared with about 50 percent and 30 percent respectively in neighboring countries (DHS various dates). This is the same age group in which incidence and prevalence have fallen the most in Uganda.

Positive changes like those in Uganda are also taking place in some other parts of the region, including the neighboring Bukoba district of Tanzania (Stoneburner and Low-Beer 2002). In Lusaka, Zambia, HIV prevalence among 15–19-year-old pregnant women fell from about 30 percent to about 15 percent between 1993 and 1998 (Fylkesnes et al. 2001; US Census Bureau 2001). As in Uganda, this decline probably had more to do with reductions in the number of casual partners than with increased condom use (Bloom et al. 2000; Agha 2002; Grulich and Kaldor 2002). The proportion of women in this age group who reported that their last partner was "casual" fell from 12 percent to 8 percent, whereas the proportion who reported condom use increased only slightly (Agha 2002).

Although the Thai and Ugandan examples exhibit important differences, they also have much in common. Both countries responded to AIDS early and decisively. Both national programs had leadership from the highest levels, were multisectorial, achieved broad public support, avoided stigmatization, and included care for the infected. Although efforts in Thailand emphasized condom use, particularly for commercial sex, they also encouraged reduction in number of sex partners. Efforts in Uganda emphasized reduction in number of partners but also encouraged the use of condoms. The differences in approach between the two countries reflected appropriate responses to different circumstances more than different philosophies.

Interactions with Other Strategies

The promotion of condom use is a prevention strategy with the potential to reduce sexual transmission of HIV, but it is not the only such strategy. Examining condom promotion in isolation gives, at best, a narrow view of prevention. Different strategies can interact additively or multiplicatively. For example, a certain level of partner reduction might cut HIV transmission in half, as might a certain level of condom use. Together they would reduce transmission even more. Such a result argues for using multiple strategies to achieve maximum impact. In conflict is the economic law of opportunity cost: A dollar spent on one intervention cannot be spent on another. This limitation argues for focusing on the approach with the best cost-benefit ratio. Unfortunately, solid data regarding the costs and benefits of different AIDS-prevention strategies are often lacking.

Interactions are even stronger when interventions designed to change one behavior also change others. Such interactions can be positive or negative, and they have received far less attention than they deserve. The 100% Condom Program in Thailand promoted use in commercial sex situations, which caused many men to give up the practice (Mills et al. 1997). Condom promotion among port workers in Brazil unexpectedly reduced the proportion reporting casual partners (Hearst et al. 1999). Studies find female condoms useful mainly because their availability encourages thinking and discussion about risk, thereby facilitating other strategies (Mantell et al. 2001).

Interactions, however, also can be negative. A recent increase in many communities in STIs (including HIV) among men who have sex with men may have resulted, in part, from a perceived decrease in the severity of HIV infection (Chen et al. 2002). In theory, antiretroviral treatment should prevent HIV transmission by reducing viral load and infectivity (Quinn et al. 2000). Unfortunately, this benefit may have been outweighed by a negative interaction between treatment and sexual behavior.

Concern that condom promotion might increase sexual activity is a major source of opposition to this strat-

egy, especially when efforts are focused on young people (St. Lawrence and Scott 1996; *AIDS Policy Law* 1997; *AIDS Alert* 1998). Condom promotion could do more harm than good if young people choose condom use over abstinence, especially if use is inconsistent in settings where transmission is widespread. Little is known about how different approaches to condom promotion affect sexual behavior, largely because evaluations seldom report outcomes other than condom use. Research on the impact of sex education for young people (Magnani and Karim 2002) gives reassuring evidence that it does not increase sexual activity, but such programs tend to be conservative, encouraging delayed sexual onset and fewer partners, rather than eroticizing safer sex.

Condom promotion among commercial sex workers and clients, no matter how explicit or sex-positive, seems unlikely to encourage the practice of commercial sex. The same might be said for condom promotion targeting other groups at high risk. The balance of risk versus benefit, however, may be different in other settings. The possibility that presenting casual sex using a condom as socially acceptable, enjoyable, and safe might increase sexual risk behavior in the general public cannot be dismissed. Condom promotion need not increase sexual activity to produce a negative effect. Even if it attenuates a decrease in the average number of sex partners that would have taken place otherwise in response to HIV/AIDS, it could be harmful.

Recommendations

Consistent condom use is effective for reducing HIV transmission. Condom use has increased substantially in many places. Promotion of condom use has played an important though variable role in successful AIDS-control programs, but questions remain. How consistent must condom use be to protect the individual? How high must rates of use be in what types of sexual partnerships to protect society? Can a generalized HIV epidemic be overcome primarily through the use of condoms? How can condom promotion best be integrated into multifaceted prevention efforts?

These questions, especially the last, require practical research. What messages for condom promotion also encourage people to have fewer sex partners? How can delayed sexual onset and "zero grazing" be presented to encourage the use of condoms when people's behavior does not meet these ideals? The answers to these questions are likely to vary from one group to another.

Campaigns for AIDS prevention might learn from efforts to reduce traffic deaths. Strategies include building safer roads and cars, promoting the use of seat belts, enforcing speed limits, and discouraging driving under the influence of drugs and alcohol. Proponents of different strategies may argue about resources, but they seldom undercut each other. An advertising campaign to promote the use of seat belts would never imply that driving while drunk is safe so long as you wear one. The experience with traffic safety also provides other, less encouraging lessons. Although wearing a seat belt clearly provides some protection, widespread seat-belt use has not cut traffic deaths as much as was anticipated, perhaps because of risk compensation: Drivers who wear seat belts feel safer than when they do not and may, therefore, drive more carelessly (Richens et al. 2000).

For many individuals and settings, using condoms is the best option for reducing the risk of acquiring or transmitting HIV. The commercial sex setting provides an obvious example. The world should follow Thailand's lead with a global 100% Condom Program. Another example is individuals infected with HIV. Consistent condom use is essential for HIV-positive people who remain sexually active. Condom promotion has proved to be an effective strategy for men who have sex with men and should also be focused on others at high risk, including drug users and STI patients.

Many countries have gone beyond targeted condom promotion and invested substantial resources in promotion for the general public. Unless such an approach were to lower the likelihood of abstinence and partner reduction, there are strong theoretical reasons that it should help. It can promote AIDS awareness and lead to the prevention of unintended pregnancy and of the transmission of STIs. Nevertheless, how effective a public health strategy condom promotion is to control a generalized AIDS epidemic remains unclear.

The impact of condom-promotion programs must be measured better. Keeping track of the numbers of condoms distributed is not sufficient. Measuring rates of consistent use by type of partner is necessary. Programs aimed at the general public should also monitor individuals' numbers of sex partners, especially casual partners, and especially among the young. Such information can be employed to detect interactions and protect condom-promotion programs from unfair criticism. For example, declining condom distribution might signal a program's success if it were the result of a reduction in the number of men who visit sex workers or have other casual partners. Fortunately, the need for better indicators to measure success in condom promotion is now receiving more attention (MEASURE Evaluation).

All interventions must be designed to avoid doing harm. Although the use of condoms is not harmful in it-

self, promotion of their use can do harm if it siphons off resources from better strategies or, worse yet, undercuts efforts aimed at partner reduction or delay of sexual onset. It might also do harm if it is not accompanied by a steady and affordable supply of condoms. Anything less could encourage inconsistent condom use—certainly not an effective means of HIV prevention.

Avoiding harm also means telling the truth: Condoms are safe and effective, but not 100 percent effective. The common practice of assuring people they can only acquire HIV through unprotected sex is not accurate. Avoiding overstatements about the effectiveness of condoms may go a long way toward eliminating any possible conflicts between condom promotion and other strategies to reduce sexual risk. Presenting people with accurate information about the advantages of condom use is not impossible. Family planning programs around the world have achieved a similar balance in promoting contraception.

Whatever the difficulties of condom promotion, this approach must be used to best advantage. There are not so many weapons against AIDS that we can forgo any, nor is any so effective that it makes the others superfluous. Much depends on realizing the potential that condom use offers.

References

Agha, S. 2001. "The Impact of the Kenya Social Marketing Program on Personal Risk Perception, Perceived Self-Efficacy and on Other Behavioral Predictors." *Population Services International Research Division Working Paper* No. 45. Washington, DC: PSI.

———. 2002. "Declines in casual sex in Lusaka, Zambia: 1996–1999." *AIDS* 16(2): 291–293.

Agha, S., A. Karlyn, and D. Meekers. 2001. "The promotion of condom use in non-regular sexual partnerships in urban Mozambique." *Health Policy and Planning* 16(2): 144–151.

Ahmed, S., T. Lutalo, M. Wawer et al. 2001. "HIV incidence and sexually transmitted disease prevalence associated with condom use: A population study in Rakai, Uganda." *AIDS* 15(16): 2,171–2,179.

AIDS Alert. 1998. "Safe sex vs. abstinence: Which is most effective?" *AIDS Alert* 13(7): 78–79.

AIDSMark. 2002. AIDSMark presentation to USAID on ABC (Abstinence, Be faithful, and Condoms), July. Washington, DC.

AIDS Policy Law. 1997. "Study shows condom use does not promote promiscuity." *AIDS Policy Law* 12(12): 6–7.

Alan Guttmacher Institute (AGI). 2002. *The Role of Behavior Change in the Decline in HIV Prevalence in Uganda*. New York: AGI.

Allen, A. 2002. "Sex change: Uganda v. condoms." *The New Republic Online*. <http://www.thenewrepublic.com/docprint.mhtml?i=20020527&s=allen052702>. Accessed 7 January 2003.

Allen, S., J. Tice, P. Van de Perre et al. 1992. "Effect of serotesting with counseling on condom use and seroconversion among HIV discordant couples in Africa." *British Medical Journal* 304(6,842): 1,605–1,609.

Asiimwe-Okiror, G., A.A. Opio, J. Musinguzi, E. Madraa, G. Tembo, and M. Caraël. 1997. "Change in sexual behavior and decline in HIV infection among young pregnant women in urban Uganda." *AIDS* 11(14): 1,757–1,763.

Bedimo, A.L., S.D. Pinkerton, D.A. Cohen, B. Gray, and T.A. Farley. 2002. "Condom distribution: A cost-utility analysis." *International Journal of STD & AIDS* 13(6): 384–392.

Bloom, S.S., C. Banda, G. Songolo, S. Mulendema, A.E. Cunningham, and J.T. Boerma. 2000. "Looking for change in response to the AIDS epidemic: Trends in AIDS knowledge and sexual behavior in Zambia, 1990 through 1998." *Journal of Acquired Immune Deficiency Syndromes* 25(1): 77–85.

Bracher, M., G. Santow, and S.C. Watkins. 2004. "Assessing the potential of condom use to prevent the spread of HIV: A microsimulation study." *Studies in Family Planning* 35(1): 48–64.

Brazilian Health Ministry. 2002. *Resposta: Experience of the Brazilian AIDS Program*. Brasilia: Brazilian Health Ministry.

Bretzman, M.C. and J.B. Stanford. 1994. "Condoms, IUDs, counseling and natural family planning." *American Family Physician* 50(4): 766–768.

Carey, R.F., W.A. Herman, S.M. Retta, J.E. Rinaldi, B.A. Herman, and T.W. Athey. 1992. "Effectiveness of latex condoms as a barrier to human immunodeficiency virus-sized particles under conditions of simulated use." *Sexually Transmitted Diseases* 19(4): 230–234.

Carey, R.F., C.D. Lytle, and W.H. Cyr. 1999. "Implications of laboratory tests of condom integrity." *Sexually Transmitted Diseases* 26(4): 216–220.

Catania, J., T.J. Coates, and R. Stall. 1991. "Changes in condom use among homosexual men in San Francisco." *Health Psychology* 10(3): 190–199.

Celentano, D.D., K.E. Nelson, C.M. Lyles et al. 1998. "Decreasing incidence of HIV and sexually transmitted diseases in young Thai men: Evidence for success of the HIV/AIDS control and prevention program." *AIDS* 12(5): F29–F36.

Chanpong, G.M.F., M. Putri, S. Oun et al. 2001. "Prevalence of HIV infection in Cambodia: Implications for the future." *International Journal of STD & AIDS* 12(6): 413–416.

Chen, S.Y., S. Gibson, M.H. Katz et al. 2002. "Continuing increases in sexual risk behavior and sexually transmitted diseases among men who have sex with men: San Francisco, California, 1999–2001." *American Journal of Public Health* 92(9): 1,387–1,388.

Cooper, H. and L.V. Hedges. 1994. *The Handbook of Research Synthesis*. New York: Russell Sage Foundation.

Darrow, W.W. 1989. "Condom use and use-effectiveness in high-risk populations." *Sexually Transmitted Diseases* 16(3): 157–160.

Davis, K.R. and S.C. Weller. 1999. "The effectiveness of condoms in reducing heterosexual transmission of HIV." *Family Planning Perspectives* 31(6): 272–279.

Demographic and Health Surveys (DHS). <http://www.measuredhs.com/hivdata/data/start.cfm?action=new_table&userid=4555&usertabid=5090&CFID=215393&CFTOKEN=94632073>. Accessed 4 December 2002.

Deschamps, M.M., J.W. Pape, A. Hafner, and W.D. Johnson, Jr. 1996. "Heterosexual transmission of HIV in Haiti." *Annals of Internal Medicine* 125(4): 324–330.

de Vincenzi, I. 1994. "A longitudinal study of human immunodeficiency virus transmission by heterosexual partners." European Study Group on Heterosexual Transmission of HIV. *New England Journal of Medicine* 331(6): 341–346.

Ford, N. and S. Koetsawang. 1999. "A pragmatic intervention to promote condom use by female sex workers in Thailand." *Bulletin of the World Health Organization* 77(11): 888–894.

XIV International AIDS Conference. 2002. "Monitoring the AIDS pandemic. The status and trends of the HIV/AIDS epidemics in the world." MAP symposium. XIV International AIDS Conference, Barcelona, 7–12 July.

Fylkesnes, K., R.M. Musonda, M. Sichone, Z. Ndhlovu, F. Tembo, and M. Monze. 2001. "Declining HIV prevalence and risk behaviors in Zambia: Evidence from surveillance and population-based surveys." *AIDS* 15(7): 907–916.

Green, E.C. and A. Conde. 2000. "Sexual partner reduction and HIV infection." *Sexually Transmitted Infections* 76(2): 145.

Green, E., V. Nantulya, R. Stoneburner, and J. Stover. 2002. "What happened in Uganda? Declining HIV prevalence, behavior change, and the national response." Washington, DC: USAID. <http://www.synergyaids.com/Documents/WhatHappenedUganda.pdf>. Accessed 18 November 2002.

Grulich, A.E. and J.M. Kaldor. 2002. "Evidence of success in HIV prevention in Africa." *Lancet* 360(9,326): 3–4.

Hanenberg, R.S., W. Rojanapithayakorn, P. Kunasol, and D.C. Sokal. 1994. "Impact of Thailand's HIV-control program as indicated by the decline of sexually transmitted diseases." *Lancet* 344(8,917): 243–245.

Hearst, N. and S.B. Hulley. 1988. "Preventing the heterosexual spread of AIDS." *Journal of the American Medical Association* 259(16): 2,428–2,432.

Hearst, N., R. Lacerda, N. Gravato, E.S. Hudes, and R. Stall. 1999. "Reducing AIDS risk among port workers in Santos, Brazil." *American Journal of Public Health* 89(1): 76–78.

Hearst, N., D. Grady, H.V. Barron, and K. Kerlikowske. 2001. "Research using existing data: Secondary data analysis, ancillary studies, and systematic reviews." In *Designing Clinical Research*. Eds. S.B. Hulley, S.R. Cummings, W.S. Browner, D. Grady, N. Hearst, and T.B. Newman. Philadelphia: Lippincott Williams & Wilkins. Pp. 195–212.

Hessol, N., A.R. Lifson, P.M. O'Malley, L.S. Doll, H.W. Jaffe, and G.W. Rutherford. 1989. "Prevalence, incidence, and progression of human immunodeficiency virus infection in homosexual and bisexual men in hepatitis B vaccine trials, 1978–1988." *American Journal of Epidemiology* 130(6): 1,167–1,175.

Hughes, V., R.D. Stall, C. Klouri, D.C. Barrett, E.I. Arevalo, and N. Hearst. 1995. "AIDS risk-taking behavior during Carnival in São Paulo, Brazil." *AIDS* 9(Supplement 1): S39–S44.

Joint United Nations Programme on HIV/AIDS (UNAIDS). 1999a. *Global Directory of Condom Social Marketing Projects and Organizations*. Geneva: UNAIDS.

———. 1999b. *Trends in HIV Incidence and Prevalence: Natural Course of the Epidemic or Results of Behavioral Change?* Geneva: UNAIDS.

———. 2000a. *The Male Condom: UNAIDS Technical Update*. Geneva: UNAIDS.

———. 2000b. *The 100% Condom Program in Thailand: A Case Study*. Geneva: UNAIDS. <http://www.unaids.org/publications/documents/care/general/JC-Condom-E.htm>. Accessed 1 October 2002.

———. 2002a. "New UNAIDS report warns AIDS epidemic still in early phase and not leveling off in worst affected countries." Geneva: UNAIDS. <www.unaids.org/whatsnew/press/eng/pressarc02/Prreport020702.html>. Accessed 7 January 2003.

———. 2002b. *Report on the Global HIV/AIDS Epidemic*. Geneva: UNAIDS.

———. 2002c. *Thailand Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections (2002 Update)*. Geneva: UNAIDS.

Kilian, A.H.D., S. Gregson, B. Ndyanabangi et al. 1999. "Reductions in risk behavior provide the most consistent explanation for declining HIV-1 prevalence in Uganda." *AIDS* 13(3): 391–398.

Kirungi, F. 2001. "Uganda beating back AIDS." *Africa Recovery* June: 26–27.

Larivee, C. 2002. "FHI/Impact data for development of BCC programming." <http://www.synergyaids.com/Documents/5_Carol_Larivee.pdf>. Accessed 29 October 2002.

Levine, W.C., R. Revollo, V. Kaune et al. 1998. "Decline in sexually transmitted disease prevalence in female Bolivian sex workers: Impact of an HIV prevention project." *AIDS* 12(14): 1,899–1,906.

Lytle, C.D. 1999. "Lack of latex porosity: A review of virus barrier tests." *Journal of Rubber Research* 2(1): 29–39.

Lytle, C.D., J.E. Duff, B. Fleharty, R.L. Bidinger, W.H. Cyr, and L.B. Routson. 1997. "A sensitive method for evaluating condoms as virus barriers." *Journal of the Association of Official Analytical Chemists International* 80(2): 319–324.

Lytle, C.D., L.B. Routson, G.B. Seaborn, L.G. Dixon, H.F. Bushar, and W.H. Cyr. 1997. "An in vitro evaluation of condoms as barriers to a small virus." *Sexually Transmitted Diseases* 24(3): 161–164.

Macintyre, K., L. Brown, and S. Sosler. 2001. "'It's not what you know, but who you knew': Examining the relationship between behavior change and AIDS mortality in Africa." *AIDS Education and Prevention* 13(2): 160–174.

Magnani, R.J. and A.M. Karim. 2002. "ABCs: The youth perspective." <http://www.synergyaids.com/Documents/6_Robert_Magnani.pdf>. Accessed 31 October 2002.

Mann, J.M., N. Nzilambi, P. Piot et al. 1988. "HIV infection and associated risk factors in female prostitutes in Kinshasa, Zaire." *AIDS* 2(4): 249–254.

Mantell, J.E., S. Hoffman, E. Weiss et al. 2001. "The acceptability of the female condom: Perspectives of family planning providers in New York City, South Africa, and Nigeria." *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 78(4): 658–668.

MEASURE Evaluation. <http://www.cpc.unc.edu/measure/guide/panel3.html#8>. Accessed 31 October 2002.

Meda, N., I. Ndoye, S. M'Boup et al. 1999. "Low and stable HIV infection rates in Senegal: Natural course of the epidemic or evidence for success of prevention?" *AIDS* 13(11): 1,397–1,405.

Mills, S., P. Benjarattanaporn, A. Bennett et al. 1997. "HIV risk behavioral surveillance in Bangkok, Thailand: Sexual behavior trends among eight population groups." *AIDS* 11(Supplement 1): S43–S51.

Museveni, Y.K. 2000. "AIDS is a socioeconomic disease." In *What Is Africa's Problem?* Ed. E. Kanyogonya. Minneapolis: University of Minnesota Press. Pp. 247–255.

Myer, L., C. Mathews, F. Little, and S.S.A. Karim. 2001. "The fate of free male condoms distributed to the public in South Africa." *AIDS* 15(6): 789–793.

National Institute of Allergy and Infectious Diseases (NIAID). 2001. "Scientific evidence on condom effectiveness for STD prevention." Washington, DC: National Institutes of Health. <http://www.niaid.nih.gov/dmid/stds/condomreport.pdf>. Accessed 3 September 2002.

Nelson, K., S. Eiumtrakul, D.D. Celentano et al. 2002. "HIV infection in young men in northern Thailand, 1991–1998: Increasing role of injecting drug use." *Journal of Acquired Immune Deficiency Syndromes* 29(1): 62–68.

Petitti, D. 1994. *Meta-analysis, Decision Analysis and Cost-Effectiveness Analysis*. New York: Oxford University Press.

Phoolcharoen, W. 1998. "HIV/AIDS prevention in Thailand: Success and challenges." *Science* 280(5,371): 1,873–1,874.

Pinkerton, S.D. and P.R. Abramson. 1997. "Effectiveness of condoms in preventing HIV transmission." *Social Science & Medicine* 44(9): 1,303–1,312.

Plummer, F.A., J.N. Simonsen, D.W. Cameron et al. 1991. "Cofactors in male-female sexual transmission of human immunodeficiency virus type 1." *Journal of Infectious Diseases* 163(2): 233–239.

Price, N. 2001. "The performance of social marketing in reaching the poor and vulnerable in AIDS control programmes." *Health Policy and Planning* 16(3): 231–239.

Quinn, T.C., M.J. Wawer, N. Sewankambo et al. 2000. "Viral load and heterosexual transmission of human immunodeficiency virus type 1." *New England Journal of Medicine* 342(13): 921–929.

Richens, J., J. Imrie, and A. Copas. 2000. "Condoms and seat belts: The parallels and lessons." *Lancet* 355(9,201): 400–403.

Ryan, C.A., O.V. Vathiny, P.M. Gorbach et al. 1998. "Explosive spread of HIV-1 and sexually transmitted diseases in Cambodia." *Lancet* 351: 1,175.

St. Lawrence, J.S. and C.P. Scott. 1996. "Examination of the relationship between African American adolescents' condom use at sexual onset and later sexual behavior: Implications for condom distribution programs." *AIDS Education and Prevention* 8(3): 258–266.

Saracco, A., M. Musicco, A. Nicolosi et al. 1993. "Man-to-woman sexual transmission of HIV: Longitudinal study of 343 steady partners of infected men." *Journal of Acquired Immune Deficiency Syndromes* 6(5): 497–502.

Sharma, R. 2001. "Condom use seems to be reducing number of new HIV/AIDS cases." *British Medical Journal* 323(7,310): 417.

Soderlund, N., J. Lavis, J. Broomberg, and A. Mills. 1993. "The costs of HIV prevention strategies in developing countries." *Bulletin of the World Health Organization* 71(5): 595–604.

Steiner, M.J., D.J. Taylor, P.J. Feldblum, and A.J. Wheeless. 2000. "How well do male latex condoms work? Pregnancy outcome during one menstrual cycle of use." *Contraception* 62(6): 315–319.

Stoneburner, R. 2000. "Analyses of HIV trend and behavioral data in Uganda, Kenya, and Zambia: Prevalence declines in Uganda relate more to reduction in sex partners than condom use." Abstract ThOrC721. XIII International AIDS Conference, Durban, 9–14 July.

Stoneburner, R. and D. Low-Beer. 2002. "Epidemiological elements associated with HIV declines and behavior change in Uganda: Yet another look at the evidence." <http://www.synergyaids.com/Documents/2_Rand_Stoneburner.pdf>. Accessed 29 October 2002.

Stoneburner, R., M. Carballo, R. Bernstein, and T. Saidel. 1998. "Simulation of HIV incidence dynamics in the Rakai population-based cohort, Uganda." *AIDS* 12(2): 226–228.

Taha, T.E., J.K. Canner, J.D. Chiphangwi et al. 1996. "Reported condom use is not associated with incidence of sexually transmitted diseases in Malawi." *AIDS* 10(2): 207–212.

Ugandan Ministry of Health (UMOH). 2001a. *HIV/AIDS Surveillance Report, STD/AIDS Control Program*. Kampala: UMOH.

———. 2001b. *HIV/AIDS Surveillance Report*. P. 13. Kampala: UMOH.

UNAIDS: See Joint United Nations Programme on HIV/AIDS.

United Nations International Children's Fund (UNICEF). 2002. *Young People and HIV/AIDS: Opportunity in Crisis*. New York: UNICEF.

United States Agency for International Development (USAID). 2002. "The 'ABCs' of HIV prevention: Report of a USAID technical meeting on behavior change approaches to primary prevention of HIV/AIDS." Washington, DC: USAID.

US Census Bureau. 2001. *HIV/AIDS Surveillance Database*. Washington, DC: US Census Bureau, Population Division, International Program Center.

Van Rossem, R., D. Meekers, and Z. Akinyemi. 2001. "Consistent condom use with different types of partners: Evidence from two Nigerian surveys." *AIDS Education and Prevention* 13(3): 252–267.

Weller, S.C. 1993. "A meta-analysis of condom effectiveness in reducing sexually transmitted HIV." *Social Science & Medicine* 369(12): 1,635–1,644.

Weller, S. and K. Davis. 2002. "Condom effectiveness in reducing heterosexual HIV transmission." *Cochrane Database of Systematic Reviews* (1): CD003255.

Acknowledgments

Preparation of this review was funded by the Joint United Nations Programme on HIV/AIDS (UNAIDS). A longer report upon which this article is based was presented at the International Union for the Scientific Study of Population seminar "Taking stock of the condom in the era of HIV/AIDS," held in Gaborone, Botswana, 13–17 July 2003.

The time has come for common ground on preventing sexual transmission of HIV

See Comment pages 1915, 1916, 1918, and 1919

See Perspectives page 1929, Exhibition: Capturing the HIV/AIDS epidemic

The HIV/AIDS pandemic is an urgent health and growing humanitarian crisis, especially in the high-prevalence regions of sub-Saharan Africa where most new infections continue to occur. On World AIDS Day (Dec 1), two decades after the discovery of the virus that causes AIDS and after many millions of deaths, we believe it is critical to reach consensus on a sound public-health approach to the prevention of sexually transmitted HIV. Although transmission from injecting drug use is a serious and increasing problem in some regions, here we focus on sexual transmission, which continues to account for most infections globally. Sexual behaviour is influenced by many factors not always under an individual's control, including gender norms and social and economic conditions. However, the public-health community has an obligation to offer people the most accurate information available on how to avoid HIV, and to encourage changes in societal norms to reduce the spread of the virus.

Although prevention should encompass multiple integrated elements, including links to expanded treatment access, changing or maintaining of behaviours aimed at risk avoidance and risk reduction must remain the cornerstone of HIV prevention. We call for an end to polarising debate and urge the international community to unite around an inclusive evidence-based approach to slow the spread of sexually transmitted HIV, on the basis of the following key principles.

First, programmatic approaches must be locally endorsed, relevant to the indigenous social and cultural context,[1] and respectful of human rights.[2] Interventions must also be epidemiologically grounded, addressing the main sources of new infections[3]—whether concentrated in high-risk settings such as commercial sex[4,5,6] or spread widely through multiple concurrent partnerships in the general population.[5,7]

Second, the ABC (Abstain, Be faithful/reduce partners, use Condoms) approach can play an important role in reducing the prevalence of HIV in a generalised epidemic, as occurred in Uganda.[8–13] All three elements of this approach are essential to reducing HIV incidence, although the emphasis placed on individual elements needs to vary according to the target population. Although the overall programmatic mix should include an appropriate balance of A, B, and C interventions, it is not essential that every organisation promote all three elements: each can focus on the part(s) they are most comfortable supporting. However, all people should have accurate and complete information about different prevention options, including all three elements of the ABC approach.

Thus, when targeting young people, for those who have not started sexual activity the first priority should be to encourage abstinence or delay of sexual onset, hence emphasising risk avoidance as the best way to prevent HIV and other sexually transmitted infections as well as unwanted pregnancy.[14] After sexual debut, returning to abstinence or being mutually faithful with an uninfected partner are the most effective ways of avoiding infection. For those young people who are sexually active, correct and consistent condom use should be supported. Young people and others should be informed that correct and consistent condom use lowers the risk of HIV (by about 80–90% for reported "always use"[11,15]) and of various sexually transmitted infections and pregnancy, and they should be cautioned about the consequences of inconsistent use. Prevention programmes for young people in and out of school should be expanded, and parents should be supported in communicating their values and expectations about sexual behaviour.

When targeting sexually active adults, the first priority should be to promote mutual fidelity with an uninfected partner as the best way to assure avoidance of HIV infection. The experience of countries where HIV has declined suggests that partner reduction is of central epidemiological importance in achieving large-scale HIV incidence reduction, both in generalised and more concentrated epidemics.[9,11–13,16] People who have a sexual partner of unknown HIV status should also be encouraged to practise correct and consistent condom use and to seek counselling and testing with their partner.

When targeting people at high risk of exposure to HIV infection (ie, engaging in commercial sex, multiple partnerships, anal sex with high-risk partners, or sex with a person known or likely to be infected with HIV or another sexually transmitted infection), the first priority should be to promote correct and consistent condom use, along with other approaches such as avoiding high-risk behaviours or partners. The identification and direct involvement of most-at-risk and marginalised populations is crucial,[2] particularly (but not only) in more concentrated epidemics, where such populations account for a large proportion of infected people. It is also critical to expand prevention programmes designed specifically for people living with HIV/AIDS.

Third, community-based approaches involving religious organisations, women's and men's associations, care groups, youth organisations, health workers, local media, and both traditional and governmental leadership can foster new norms of sexual behaviour, as for example occurred with the successful zero-grazing strategy (fidelity and partner reduction) in Uganda.[8,11,16,17] Prevention programmes need to address issues such as stigma, gender inequality, sexual coercion, cross-generational relationships and transactional sex,[7,17–20] and directly involve people living with HIV/AIDS, in order to maximally achieve the behavioural objectives necessary to reduce HIV incidence at the population level.

To further achieve the prevention, care, and treatment objectives (including the goals for reducing HIV in women

National AIDS Trust (NAT) Virtual Red Ribbon campaign
The UK charity NAT is calling for 7000 businesses and organisations to wear a Virtual Red Ribbon on their website in the lead up to Dec 1, World AIDS Day. Each Virtual Red Ribbon will represent the 7000 people who became HIV positive in the UK in 2004. The red ribbon can be downloaded free from http://www.worldAIDSday.org and worn on your website or as email signature as sign of support for the global fight against HIV and AIDS.

Louis Ochero in 1988, former head of the Health Education Division of Uganda's National AIDS Control Program
Uganda's successful prevention approach involved the fostering of a broad social movement, which developed approaches such as "Zero Grazing" to promote new norms of sexual behaviour. Louis died in 1990.

Comment

and infants) specified by the United Nations General Assembly Special Session declarations (UNGASS), the US President's Emergency Plan for AIDS, the Millennium Development Goals, and other international initiatives, the global community will need to greatly expand access to services for testing, effective counselling for and treatment of HIV/AIDS and other sexually transmitted infections, prevention of mother-to-child transmission, and family planning.[2]

Given the critical importance of averting new HIV infections, emerging evidence on potential interventions such as microbicides or other female-controlled methods, treatment of genital herpes and other sexually transmitted infections, male circumcision, and vaccines should be continuously reviewed for inclusion in HIV prevention programmes, while doing so in a way that fosters overall risk reduction and minimally interferes with the adoption of essential prevention behaviours. The time has come to leave behind divisive polarisation and to move forward together in designing and implementing evidence-based prevention programmes to help reduce the millions of new infections occurring each year.

Daniel T Halperin, Markus J Steiner, Michael M Cassell, Edward C Green, Norman Hearst, Douglas Kirby, Helene D Gayle, Willard Cates

University of California, San Francisco, CA 94143, USA (DTH, NH); Family Health International, NC (MJS, WC); Washington DC (MMC); Harvard University, MA (ECG); ETR Associates, CA (DK); and International AIDS Society, Seattle (HDG)

dhalp@worldwidedialup.net

The following endorse this statement, although listing of institutional affiliations does not imply that these organisations do so:

Quarraisha Abdool Karim and Salim Abdool Karim, University of KwaZulu-Natal, South Africa; Mohamed S Abdullah, Aga Khan University, Kenya; Yigzaw Abebe, Alert Hospital, Addis Ababa; Michael Adler, University College of London; Saifuddin Ahmed, Johns Hopkins University; Milton Amayun, World Vision International; Judy Auerbach, American Foundation for AIDS Research; Antoine Augustin, MARCH, Haiti; Bertrand Auvert, University of Paris; Olusegun Babaniyi, WHO, Ethiopia; Robert C Bailey, University of Illinois at Chicago and UNIM Project, Kenya; Bishop Joshua Banda, Assembly of God Church, Zambia; Edward Baraka-mwa, Pan African Christian AIDS Network, Botswana; Alvaro Bermejo, International HIV/AIDS Alliance; Jane Bertrand and Robert Blum, Johns Hopkins University; Godfrey Biemba, Churches Health Association of Zambia; Daraus Bolonya, African Medical and Research Foundation (AMREF); Gideon Byamugisha, World Vision, Uganda; Jack Caldwell, Australian National University; Sharon Camp, Alan Guttmacher Institute; Martha M Campbell, University of California, Berkeley; Michel Caraël, Free University of Brussels; Ken Casey, World Vision International; James Chin, University of California, Berkeley; Tsyekwa Chirimbire, Zimbabwe Association Church Related Hospitals; Brian Chitsowo, Minister of Health, Zambia; Peter Clancy, Population Services International; Amy Coen, Population Action International; Myron Cohen, University of North Carolina; Nicholas Danforth, Brandeis University; Charles DeBose, AFRICARE; Nafissatou Diop, Population Council, Senegal; Christopher J Elias, PATH; Walaa El-Sadr, Columbia University and Harlem Hospital; Paul Farmer, Harvard University; Toni Fernandez Whitney, Church World Service; J Peter Figueroa, Ministry of Health, Jamaica; Janet Fleischman, Center for Strategic and International Studies (CSIS), and the Global Coalition on Women and AIDS; Virginia D Floyd and Erick V A Gbodossou, Promotion des Medecins Traditionnelle (PROMETRA); Knut Fylkesnes, University of Bergen; Sue Goldstein, Soul City, South Africa; C Y Gopinath, PATH, Kenya; Ronald Gray, Johns Hopkins University; Heiner Grossiurth, Medical Research Council and Uganda Virus Research Institute; Geeta Rao Gupta, International Center for Research on Women; Catherine Hankins, UNAIDS; Richard Hayes, London School Hygiene Tropical Medicine; King K Holmes, University of Washington; John Howson, International HIV AIDS Alliance and Health Communication Partnership; Douglas H Huber, Council of Anglican Provinces of Africa; Jokin de Irala, Universidad de Navarra, Spain; Jesse Kagimba, Office of the Presidency, Uganda; Jean Kagoban, National University of Rwanda; Nosrine Kaleeba, TASO, Uganda and UNAIDS; Sam Kalibala, International AIDS Vaccine Initiative; Anatoli Kamali, Medical Research Council Programme, Uganda; Shivananda Khan, Naz Foundation International; Jim Y Kim, WHO; Leon Kintaudi, Church of Christ, Congo; Steve Kraus, UNFPA; Marie-Laga, Institute of Tropical Medicine, Antwerp; Peter Lamptey, Family Health International; Jay Levy, University of California, San Francisco; Stephen Lewis, UN Special Envoy for HIV/AIDS in Africa; W Meredith Long, World Relief; Daniel Low Beer, Global Fund to Fight AIDS, Tuberculosis and Malaria, and Cambridge University; Joe L P Lugalla, Centre for Social Policy and Health Promotion, Tanzania; David Mabey, London School Hygiene Tropical Medicine; Matilde Maddaleno, PAHO/WHO; Elizabeth Madraa, Ministry of Health, Uganda; Bunmi Makinwa, UNAIDS, Ethiopia; Ray Martin, Christian Connections in International Health; Rafael Mazin, PAHO/WHO; Sheena McCormack, Medical Research Council, UK; Negatu Mereke, HIV/AIDS Prevention and Control Office, Ethiopia; Ruth Messinger, American Jewish World Service; Serara Mogwe, University of Botswana; Stephen Moses, University of Manitoba; Antonio de Moya, Presidential Council on AIDS, Dominican Republic; Roland Msiska, UNDP, South Africa; Joia Mukherjee, Partners in Health; Elaine M Murphy, George Washington University; President Yoweri Museveni, Uganda; Samuel Mwenda, Christian Health Association of Kenya; Vinand M Nantulya, Global Fund to Fight AIDS, Tuberculosis and Malaria; Jeckoniah Ndinya-Achola and Ruth Nduati, University of Nairobi; Angela Obasi, Liverpool School of Tropical Medicine; Sam Okware, Ministry of Health, Uganda; Ana Oliveira, Gay Men's Health Crisis; Kevin O'Reilly, WHO, Emmanuel Ololorin, JHPIEGO, Zambia; Nancy Padian, University of California, San Francisco; Bill Pape, GHESKIO, Haiti; Warren Parker, CADRE, South Africa; Ken Pearson, Christian HIV/AIDS Alliance, UK; Eddy Perez-Then, National Research Centre of Maternal and Child Health, Dominican Republic; Elizabeth Pisani, Family Health International, Indonesia; Nana Poku, Commission on HIV/AIDS and Governance in Africa; Malcolm Potts, University of California, Berkeley; Thomas Quinn, Johns Hopkins University; S Y Quraishi, National AIDS Coordinating Office, India; William W Rankin, Global AIDS Interfaith Alliance; Celso Ramos, Universidade Federal do Rio de Janeiro; Helen Rees, University of Witwatersrand, South Africa; Eugene Rivers, Azusa Christian Community, Boston; Allan Rosenfield, Columbia University; David A Ross, London School of Hygiene and Tropical Medicine; Sara Ruteikara, CHUSA and Anglican Church of Uganda; Jorge Sanchez, IMPACTA, Peru; Mauro Schechter, Universidade Federal do Rio de Janeiro; Anton Schneider, Academy for Education Development; Nelson Sewankambo, Makerere University; Olive Shisana, Human Sciences Research Council, South Africa; Roger Short, University of Melbourne; Arvind Singhal, University of Ohio; Vicente Soriano, Carlos III Hospital, Madrid; Femi Soyinka, Obafemi Awolowo University, Nigeria, and Chairperson, International Conference on AIDS and STDs in Africa (ICAASA), 2005; Martin Ssempa, Makerere Community Church of Uganda; Rand Stoneburner, Cambridge University; John Stower, Futures Group; Jean Paul Tchupo, IRESCO, Cameroon; Archbishop Desmond Tutu, Anglican Church of Southern Africa; C Johannes van Dam, Population Council; Valdilea G Veloso, Oswaldo Cruz Foundation, Rio de Janeiro; Mechai Viravaidya, Population and Development Association, Thailand; Derek van Wissell, National Emergency Response Council on HIV/AIDS, Swaziland; Catharine Watson, Straight Talk Foundation, Uganda; Debby Watson-Jones, AMREF Tanzania and London School Hygiene Tropical Medicine; Alan W Whiteside, University of KwaZulu-Natal, South Africa; David Wilson, World Bank; Telenia Worede, WHO, Ethiopia; Godfrey Woelk, University of Zimbabwe; Debrework Zewdie, World Bank; Paul Zeitz, Global AIDS Alliance; R Timothy Ziemer, World Relief; Isabelle de Zoysa, WHO.

We especially thank Tom Fitch, Joe Mulhaney, and others of the Medical Institute for originating the process of bringing together individuals from different backgrounds and views to search for common ground in HIV prevention, and for providing important input on early drafts. In addition, David Stanton, Anne Peterson, Constance Carrino, Helen Epstein, Susan Cohen, Jeff Spieler, Glenn Post, Kate Crawford, John Douglas, Moira Killoran, and Cynthia Kay provided valuable comments and input.

1 Wilson D. Partner reduction and the prevention of HIV/AIDS: the most effective strategies come from communities. *BMJ* 2004; 328: 848–49.

2 International Federation of Red Cross and Red Crescent Societies, et al.

Reviewing our voice code of good practice for NGOs responding to HIV/AIDS. http://www.ifrc.org/what/health/hivaids/code (accessed Nov 16, 2004).

3 Pisani E, Garnett GP, Grassly NC, et al. Back to basics in HIV prevention: focus on exposure. *BMJ* 2003; **326:** 1384–87.

4 Cote AM, Sobela F, Dzokoto A, et al. Transactional sex is the driving force in the dynamics of HIV in Accra, Ghana. *AIDS* 2004; **18:** 917–25.

5 Cohen J. Asia and Africa: on different trajectories? *Science* 2004; **304:** 1937–38.

6 Morris M, Kretzschmar M. Concurrent partnerships and the spread of HIV. *AIDS* 1997; **11:** 681–83.

7 Halperin D, Epstein H. Concurrent sexual partnerships help to explain Africa's high HIV prevalence: implications for prevention. *Lancet* 2004; **363:** 4–6.

8 Green E. Rethinking AIDS Prevention. Westport, CT: Praeger, 2003.

9 Measure Evaluation. Sexual behaviour, HIV and fertility trends: a comparative analysis of six countries. USAID, 2003: http://www.cpc.unc.edu/measure/publications/pdf/sr-03-21b.pdf (accessed Nov 16, 2004).

10 Cates W. The "ABC to Z" approach: condoms are one element in a comprehensive approach to STI/HIV prevention. *Network* 2003; 22: http://www.fhi.org/en/RH/Pubs/Network/v22-4/nt2241.htm (accessed Nov 16, 2004).

11 Cohen S. Promoting the 'B' in ABC: its value and limitations in fostering reproductive health. The Guttmacher Report on Public Policy 2004; 7: October, 2004: http://www.guttmacher.org/pubs/tgr/07/4/index.html (accessed Nov 18, 2004).

12 Shelton J, Halperin D, Nantulya V, Potts M, Gayle H, Holmes K. Partner reduction is crucial for balanced "ABC" approach to HIV prevention. *BMJ* 2004; **328:** 891–93.

13 Hearst N, Chen S. Condom promotion for AIDS prevention in the developing world: is it working? *Stud Fam Plann* 2004; **35:** 39–47.

14 Pettifor AE, van der Straten A, Dunbar MS, Shiboski SC, Padian NS. Early age of first sex: a risk factor for HIV infection among women in Zimbabwe. *AIDS* 2004; **18:** 1435–42.

15 Weller S, Davis K. Condom effectiveness in reducing heterosexual HIV transmission. Oxford: *The Cochrane Library*, Issue 2, 2003.

16 Stoneburner R, Low-Beer D. Population-level HIV declines and behavioural risk avoidance in Uganda. *Science* 2004; **304:** 714–18.

17 Epstein H. The fidelity fix. *New York Times Magazine*, June 13, 2004.

18 Kelly RJ, Gray RH, Sewankambo NK, et al. Age differences in sexual partners and risk of HIV-1 infection in rural Uganda. *J Acquir Immune Defic Syndr* 2003; **32:** 446–51.

19 Longfield K, Glick A, Waithaka M, Berman J. Relationships between older men and younger women: implications for STIs/HIV in Kenya. *Stud Fam Plann* 2004; **35:** 125–34.

20 Leclerc-Madlala S. Transactional sex and the pursuit of modernity. *Social Dynamics* 2003; **29:** 1–21.

21 U.S. Agency for International Development, Bureau for Global Health. Adding family planning to PMTCT sites increases the benefits of PMTCT. October, 2003: http://www.usaid.gov/our_work/global_health/pop/techareas/familyplanning/fppmtct.pdf (accessed Nov 18, 2004).

From a vicious circle to a virtuous circle: reinforcing strategies of risk, vulnerability, and impact reduction for HIV prevention

See Comment pages 1913, 1916, 1918, and 1919

UNAIDS supports the consensus statement[1] on HIV prevention because reducing individual risk is essential to people protecting themselves and others against sexually transmitted HIV infection. Nevertheless, we believe that it is equally critical to mount broad strategies that address vulnerability to HIV exposure—ie, the inability of individuals to control their risk of infection because of contextual factors that create situations of risk.[2]

Young people aged 15–24 years constitute half of all new cases of HIV infection worldwide,[3] and need access to the full range of prevention services, information, and commodities. Decreasing their vulnerability to HIV means providing educational opportunities and tackling unemployment and underemployment through job creation and job-training initiatives. Women and girls constitute almost half of all those living with HIV globally.[4] Situations of vulnerability that increase their risk of HIV exposure include unequal access to education, limited employment opportunities, economic dependence, lack of property and inheritance rights, exposure to physical and sexual violence and early marriage.[5] Protecting young people and women from exploitation, trafficking, and sexual abuse is also HIV prevention.

Equally important is the fight against the social exclusion of people living with HIV. Protecting their legal, political, and economic rights, while ensuring their active participation in policy development and in the design, implementation, and evaluation of prevention programmes, enables their healthy behaviours, reaps benefits from their engagement, and boosts their influence on others to adopt safer behaviours.

The impact of AIDS on societies and communities creates vulnerability to HIV. AIDS-related illness can reduce household revenue and increase health-care expenditures, leading to decreased family-food consumption.[3] Measures to alleviate impact that also reduce vulnerability include: assistance to enable families to maintain their homes; income-generating activities for vulnerable groups; food security programmes; community support for orphans, caregivers, and others seriously affected by the epidemic; and life-prolonging treatment with antiretrovirals.

An estimated 5 million people are being infected annually;[4] the epidemic is clearly outpacing a response which is not on the bold scale required to reverse its course. Scaling up risk-reduction programmes is not the whole answer. Programmes which assume that all individuals have autonomous decision-making capacity to make healthy choices will achieve, at best, partial success. UNAIDS supports comprehensive prevention strategies that go beyond creating awareness, building skills, and providing access to prevention tools. Such programmes foster supportive social norms, alleviate the impact of AIDS, address stigma and discrimination, and actively work to rectify underlying vulnerabilities that place people, particularly the young and women, in situations of HIV exposure risk.

Effective prevention requires policies that reduce the vulnerability of large numbers of people by creating social, legal, and economic environments in which prevention becomes possible—precisely because an effective response to AIDS goes hand in hand with basic socioeconomic development.

ABC approach (Abstain, Be faithful/reduce partners, use Condoms) to prevention is essential but not enough
Women are getting infected not only because they do not have information but also because they do not have social and economic power to keep safe. Ensuring that girls complete secondary school can significantly reduce their vulnerability to HIV by boosting their skills and opening up opportunities they need to achieve greater economic independence.

Mr. PAYNE. Thank you very much for all of your testimony. We have votes coming up, but I think we can begin our questioning, and then at an appropriate time we will leave, and hopefully you will be able to remain for the question period.

I would like to begin with Dr. Hearst. You talked about the condoms and ineffectiveness in general. You mention that there are condom-only programs. And I wonder if you could talk about that.

I was unaware that there would be programs where condoms would be distributed without any kind of educational material or people talking about the A and the B, also. So do you know of any programs that stress only condom distribution, without any other kinds of education, et cetera, that needs to go along with the whole concept?

Dr. HEARST. Well, certainly that is not what we generally found for PEPFAR programs in the review in three African countries, where I was last year.

But if we look historically at how condoms have been promoted, including often with U.S. Government funding, it has often been an approach called condom social marketing, where the goal is to provide condoms at below-market prices, make them readily available, and promote their uptake. And if you are not careful, and often what does happen is, success is measured in the number of condoms sold.

And you promote a product where, you know, we are Americans; we know how to promote products. We can sell toothpaste; we can promote condoms. And these condom social marketing efforts will generally not be at all integrated into messages about changing sexual behavior. I could give specific examples; I am not sure how helpful that would be at this point.

But I am not at all opposed to making condoms available. When I support ABC, I include the C in ABC.

Mr. PAYNE. Would any of the other witnesses like to comment on the whole question?

Dr. GAYLE. Yes, thank you. I would just like to add a few points.

You know, I think the issue has really moved past whether A, B, and C are all critical elements for prevention. I think all of us would agree that all three components are critical.

Our feeling is that we haven't gone far enough. And particularly if you look at the issue of those who are increasingly vulnerable—girls and women in the countries at greatest risk—our ABC strategies don't really meet their needs. And abstinence, being faithful, and wearing condoms are oftentimes, in fact, usually not within the control of women. And women's vulnerability actually derives from other issues, including their economic dependency, their social dependency, et cetera. And so I think we have to go beyond that.

But I think spending a lot of time arguing whether it is A, B, or C really diverts from how we really have the best long-term, sustainable impact.

Our concern is about being prescriptive at the country level, and not allowing countries to have the capacity and the ability to actually decide which program works best for them within their own cultural context, not allowing them to use the range of tools that will have sustainable impact on reducing HIV.

Dr. MUKHERJEE. I would also like to add some pieces of evidence. I think there is actually more than ample evidence that poverty is a risk factor for HIV.

Our group has done studies in Haiti, looking at the risk for women who contract sexually transmitted disease, their main risks being not having a proper roof over their head, and not having a radio, markers of their poverty, not of their promiscuity. These women with sexually transmitted disease had a very low number of sexual partners.

The second, we also have evidence of economics and its relationship to having forced sex from within Haiti again. There are many other pieces of evidence that poverty is a risk factor, I know no evidence that being rich is a risk factor for HIV, other than very early in the epidemic, with air travel. And in fact, it was sexual tourism itself that brought HIV to Haiti in the beginning of the epidemic.

And I don't think at this point it is true that more rich people in poor countries have HIV than poor people. I work on the ground all the time as a clinician. The large majority of people living with HIV are very poor.

Dr. DAULAIRE. I would just like to comment about the ABC debate.

From the standpoint of organizations and health professionals working in the field, it is really a false dichotomy. And we have heard from Dr. Hearst, as well as from Dr. Gayle, that responsible programs really work across the spectrum, dealing with partner reduction, dealing with delayed onset of sexual activity, and dealing with provision of condoms and other reproductive health services to protect those who are at risk.

And this is not new. I know that we have had a lot of discussions about this since the initial debate over the authorization of PEPFAR. But I would remind this committee that the signal success story that has been cited here, Uganda, where certainly the changes in sexual behavior were and have been an important contributor to the reduction in HIV, was not an invention of PEPFAR. In fact, Uganda had the greatest per capita contribution of United States Government AIDS support through the late eighties, through the 1990s, and into the beginning of this century, of any country in the world. So this was the consequence of a long time, with lots of people working there. And the A and B in Uganda were very much a part of the fabric that the United States Government was involved in promoting back before PEPFAR, as well.

So I would just caution us against getting tied up in a debate that is perhaps not very real on the ground.

Mr. PAYNE. Thank you very much. Could you put the screen on, and see how much time we actually have? Okay.

Well, we have a few minutes left. And I will just yield to Mr. Smith, if he would like to begin questioning.

Mr. SMITH OF NEW JERSEY. Thank you very much, Mr. Chairman. Let me begin with Dr. Hearst, with your focus on generalization of epidemics, or epidemics generalized as opposed to concentrated.

I was struck by your comment that we then look for evidence of a public health impact for condoms in generalized epidemics. To our surprise, we couldn't find any. No generalized HIV epidemic

has ever been rolled back by a prevention strategy based primarily on condoms. Instead, the few successes in turning around the generalization of the epidemic, such as Uganda, were achieved not through condoms, but by getting people to change their sexual behavior.

And you end with an important point, that anything that dilutes the focus of AIDS prevention in Africa from changing sexual behavior may do more harm than good. And yet you point out that UNAIDS didn't publish the results. I am wondering why that was so and if you could elaborate again on this very provocative statement, which I think over the last 4 years is being proven true through evidence-based information that has been percolating from the field.

Dr. HEARST. Well, I think the results that we found weren't what UNAIDS expected. They weren't what we expected going into it. I know there was a lot of internal debate about it at UNAIDS. I know a lot of individuals at UNAIDS who told me privately that they, you know, agreed with what we were saying, and appreciated what we were saying. I don't think UNAIDS was prepared to make that sort of a statement at that time.

There have been some changes in UNAIDS. Peter Piot supports ABC; says he supports ABC. Then the next moment he is saying that condoms are the only strategy that has been shown to work, which I have to kind of scratch my head when I hear.

But I think that there has been some shift there. And hopefully, we will continue to see more of a shift in that regard. But of course, UNAIDS has to be very careful about what they do and say and put out, because, by their nature, they have to act as a consensus-based organization.

Mr. SMITH OF NEW JERSEY. But again, publishing information. Had your findings proved the opposite, I am sure that finding would have been widely disseminated, would have been published. When evidence is gleaned that doesn't support a pre-conceived notion, it gets put into a spike somewhere or put into a closet somewhere. This is very troubling and very disconcerting that a group would not want that information to go forward.

We want it all on the table. And again, you found some information which many of us intuitively thought might be true, but you have found information and evidence that supports it.

Dr. HEARST. Well, I agree with you. I will say they didn't try to keep us from publishing it ourselves, as individuals. But they were not willing to put their stamp on it.

Mr. SMITH OF NEW JERSEY. But again, the imprimatur of UNAIDS would have, I think, changed at least some of the debate. Because there has been a very strong debate, as you know.

I am the one who authored the amendment dealing with the conscience clause, because we found, and we had ample evidence of it, that during the 1990s, large numbers of faith-based organizations that wanted to do abstinence and being faithful were precluded from U.S. funding. I used examples during the floor debate to back that up and I heard it anecdotally all the time, found clear evidence of it. From my point of view, changing sexual behavior certainly is one of the keys to stopping this.

As I said in my opening statement, Mr. Chairman, I think it does smack of racism to suggest that some individuals are not able to change. I found, in my trips to Africa, that time and time again, the individuals, especially the young people in this Lancet piece, which Dr. Gayle has signed as well, makes it very clear that the first priority in targeting young people should be to encourage abstinence or delay of sexual onset.

We found that apart from PEPFAR, Mr. Chairman, the rest of the international community was asleep at the switch, unwilling to buy into this idea. I think your testimony gave some reasoning behind that. A part of it is that they are focused on a concentrated epidemic, as opposed to a generalized one. Whatever other reasons might be out there, I think your statement was a very good explanation for that.

So it seems to me—and you say so in your statement, that overall we are better off with earmarks than without them. Absent the earmark, it is my belief—and I would appreciate your view on this—we would have seen abstinence and being faithful again being put on a shelf somewhere.

And I would just note parenthetically that Dr. Ilyoto, the head of the Uganda Parliamentary Committee that deals with HIV/AIDS, has said that we need more money for a debate. He is very concerned that the being faithful part is not getting ample funding, because that is where you can really change lives and also have a tremendous impact on whether or not people get sick. If you could, in the minute or so you have left.

Dr. HEARST. Well, I would totally agree with that, on the B. And there tend to be passionate advocates for both the A and the C, and then unfortunately the B tends to get forgotten, when really reducing number of partners among the general adult population, in places with generalized epidemics, is probably the most important of the three. And it tends to get lost, sort of lost in the cross-fire, so to speak. So I would totally agree with that.

In my opinion, the prevention earmarks in this first cycle of PEPFAR have done more good than harm. Any earmarks can be cumbersome. There can be times when local people feel that they tie their hands. They may be right at times. But I have just seen this too often, that if you don't have an earmark, that we are going to spend at least this much of the budget on getting sexual behavior change, then it gets lost. People tend to see their AIDS program as a basket of services, and we have got to provide everything in the basket. And by the time you have tried to do that, the money is all spent on other things that are much more expensive. And the B, in practice, tends to get lip service, unless you specifically decide we are going to spend X amount on this. That is my concern.

Mr. PAYNE. It looks like it is about time to recess. We will return in about 15 minutes, when these votes are over. Thank you.

[Recess.]

Mr. PAYNE. We will reconvene our hearing. And we will start a second round of questioning. We do expect a few of the members to come back, although many of them have lunch meetings to go to.

Let me just ask Dr. Hearst. You closed your testimony and the discussion that we had with a warning about moving beyond the

ABCs, and specifically cited concerns about focusing on issues such as gender inequality as a means of prevention.

You said in your statement that African countries with the best records in this regard, like Botswana, which we already heard mentioned in the discussion, have the highest rates of HIV infection. I think that it was talked about that that was prior to, and as it has been moving on we see that there has definitely been a shift. And it may have been because of the mobility of people at that time.

But what I find so interesting about the example you cited is that Physicians for Human Rights conducted an in-depth study, which was released earlier this year, which detailed the effects of gender inequality and discrimination on the spread of AIDS in Botswana and Swaziland.

The authors found that in fact the HIV and AIDS epidemic in Botswana is undergirded by women's lack of decision making on sexual matters, and prevalent gender discrimination.

So I guess my question is, first of all, are you familiar at all about this report? I have a copy of it here. And have you, yourself, conducted an in-depth study on the status of women in Botswana, and its effect on the spread of HIV? And do you believe that because the status of women may be better, relatively speaking, in Botswana than in other African countries, that there is no gender inequality there; thus making social gender imbalances a non-consideration in the spread of the disease?

Dr. HEARST. I was aware of that report. I have not read the report. And I can't say that I have personally conducted research specifically on gender equity.

I think gender equity is a very important issue and cause. I think, on the other hand, if you look at Africa, there certainly is no Muslim country in Africa that has high rates of HIV/AIDS, and it is not because they have better gender equity. And that the countries like Botswana and South Africa, some of the countries with the highest rates have—not to say that there couldn't be more improvement; I am sure there can, everywhere—but if you tried to look at a correlation between the status of women in Africa, at least on a national basis, and HIV rates, you wouldn't find it, or you would find it going perhaps in the other direction.

By that, I am not trying to imply we shouldn't be working on gender equity. I think there is a perception sometimes that by trying to change sexual behavior, we are talking about just telling disempowered young women, you know, you have to say no, and putting all the onus on them. And that is not how it should be at all. We should be working probably more with the older men than the younger women, the older men who are infecting these younger women, and making it no longer socially acceptable or okay for them to be pressing younger women to have sex with them. And taking some of this pressure off I would hope would be empowering for women, not repressive for women.

So I am sure there are many situations where working with gender equity and HIV prevention can be synergistic. We just shouldn't assume that the problem will go away if we get better gender equity, or that necessarily anything that is good for gender

equity is what we ought to be doing for HIV prevention, or vice-versa.

Mr. PAYNE. Your plus, Dr. Gayle, you were saying ABC-plus. And once again, what were some of those pluses you were talking about? I think it kind of maybe contradicts some of what Dr. Hearst—I think we all agree that prevention is the way to go. I think that that goes without saying.

I guess the question is: How do we go about prevention? How do you go about education? What are the ways, at the end of the day, to assist in prevention? And we are finding that there are a lot of different ways. I think everyone agrees that abstinence is very important; I don't know anyone who doesn't advocate abstinence.

I think there are some who say, then, in case abstinence doesn't work, now where do we go? And that was the point of some of the questions about a specific amount of funds earmarked for abstinence-only programs, where I think everyone talks about abstinence. You can't talk about HIV and AIDS if you are not talking about trying to abstain. Well, if you are young, and I couldn't agree more that the B is very important, that once you are of age, then what? You are not talking abstinence to a 35-year-old, generally speaking.

So it is this question of the be faithful, limiting partners, et cetera. However, then, as Dr. Gayle said, it is difficult to do. And you even admit older men have a strong influence in communities; and therefore, how do you change their behavior? So it is far from—do you have any comments, or do any of the other witnesses? We have discussed it earlier, but I think that this is really, as we look at reauthorization, we have got to try to figure out what is going to be best for the amount—if we don't get the $50 billion that has been requested. I think that is a good number.

I mentioned $30 in Kenya on World AIDS Day in 2006. And 3 or 4 months later, the President also mentioned doubling it to $30 billion. Maybe I should have said 50. [Laughter.]

Yes, Dr. Gayle.

Dr. GAYLE. Well, just to start it—I am sure that my other colleagues have additional points to make—on this issue of gender, if you look at the epidemic, particularly in Africa, it is fairly clear the numbers make the point. In the younger age group, for every one infection within a young man, there are three infections in the same-age girls. And so the ratio of female-to-male HIV infection makes it clear that this is an epidemic that is disproportionately impacting women, and particularly young women. Sixty percent of new HIV infections in Africa are occurring in women. And it should be no surprise.

We know that for any sexually transmitted disease where heterosexual transmission is the main route of spread, it will have a greater impact on women. For biologic reasons, for social reasons, and for economic reasons.

And so our comments reflect the fact that if that is the reality, and if behavior change is, in fact, the best route that we have at this point of reducing HIV infections, we have to look at what contributes to that behavior.

And on the side of women, if we want to be able to change the underlying reasons that women are vulnerable to HIV, it is impor-

tant to look at what are the driving factors. They are often social and economic.

If we want to look at the male side of the equation, which we must, as well, if we want to have an impact, then we do have to look at changing social norms, looking at what it is going to take to support men to think about gender relations differently, and really support very different behavior in men, while we give women the support to be able to reduce their own risk for HIV.

So I think that those are the points that we tried to make. You know, when it gets back to this issue of whether or not an earmark is important to do that, again, I think that there is very little disagreement that all three components of the ABC equation are very important foundations.

I think where we would differ is whether or not an earmark is essential for having that balance, and whether having an earmark that preferentially states that A and B are the components that have to be stressed is again where we have a difference, that we really do think that a comprehensive approach is important. And that including all three components will ultimately have the greatest impact. And tailoring that to the epidemiology, tailoring it to the population at need, continuing to make sure that we look at what makes the biggest difference for any given population.

And then finally, I think, while it is true that the issues of what you do in a generalized versus concentrated epidemic are different in the strategies that are used, even within a concentrated epidemic, there are populations that are at greater risk than others. And we have to think about the fact that young women, particularly those who are living under economic hardship, are at greater risk; and that we do have to think about how you tailor a response that meets those who are at the highest risk, even within the context of a concentrated epidemic.

Mr. PAYNE. Yes.

Dr. MUKHERJEE. I would like to just mention one thing about the "plus" issue. When I started working in HIV prevention in Uganda—I was part of the big push in the early nineties in Uganda, where the prevalence in the town that I worked in was 35 percent, which means of adults of child-bearing age, the prevalence was about 60 percent. Many of the adults were dying of HIV.

And I was working on a program for children, 10 to 14. And it was before there was any issue of ABCDEF. There was no alphabet attached to the need, the urgent need that we had to prevent HIV infection in these young people before the onset of their sexual activity. We talked enormously about trying to delay the onset of sexual intercourse until marriage, until they had finished their education, et cetera. That was the focus of the program: To try to get them to understand HIV risk.

And for these children in 92 schools throughout rural western Uganda, we had a 3-week course about how AIDS is transmitted, how it can be prevented, and reproductive health in general.

When we asked these children what is your main risk factor for HIV, in school after school they said poverty. They did not say sex; they did not say rape. They said poverty.

And I will tell you that for these women, children, and particularly girls, school is not free. And they were often sleeping with a

man who would have a relationship with them, who would pay them for their school fees, as a calculated risk against being illiterate and not able to enter the job market.

And when you ask children to make the choice of going to school or not going to school, and if someone will pay for that school, they will take that risk. And you can make the argument that it is actually not a bad risk, because one known person that they are sleeping with is much safer than being a servant and being raped, and being vulnerable for the rest of your life.

So one of my feelings, and something that we do in Partners In Health as risk prevention, is thinking about getting rid of school fees; is helping children go to school. And is that an abstinence program? Well, in fact, it is. Because every study—again, these are studies—there is evidence that shows that the longer time girls are in school, the more likely they are to delay the onset of sexual intercourse.

So the idea that we could sit and tell them about abstinence is one thing. But if you don't have the actual choice, if you are robbed of your agency by poverty; and similarly, many of the women that we take care of in rural Haiti, in rural Rwanda, in rural Lesotho, they are bargaining for sex for food for their children.

As a mother of a 14-month-old, who has been in 14 countries, by the way, I can say that I don't know a single mother who, if faced with starving children, would not have sex with a man to feed her children and support her.

So what is the plus? The plus is providing some means, some safety net as a way to do prevention. Whether it is school fees, whether it is income-generating programs, whether it is the provision of food to extremely needy families, these are AIDS prevention.

And we can talk about abstinence, et cetera. These are rhetoric in terms of the decisions people are making that have to do with feeding their children, surviving, going to school.

Mr. PAYNE. Thank you. Thank you very much. I see Dr. Boozman.

Mr. BOOZMAN. I really don't—I am just enjoying the comments, to be honest. I appreciate all of you all, that you spent, reading your bios, you have spent a good portion of your lives really in a very noteworthy endeavor, you know, trying to solve these tremendous problems.

I agree with you, Doctor, that the school fees and that, poverty, you know, those are tremendous problems. It is just difficult, you know, as you do travel, and those of us on Foreign Affairs do have the opportunity to travel a lot, and get around and understand the extreme poverty in these countries.

So I really don't have any questions. Again, I just appreciate your-all's work. I appreciate the fact that you are in the battle. And there are lots of differences of opinion as to how to get these things done. And yet we really do want to help you any way we can, and just appreciate your efforts. Thank you.

Thank you, Mr. Chairman, Ranking Member, for having the hearing.

Mr. PAYNE. Thank you very much. Mr. Scott?

Mr. SCOTT. Thank you, Mr. Chairman. And I want to commend each of you, because each of your presentations has been very, very illuminating. They have been very, very informative.

When I was in the Georgia Senate as a Georgia Senator, I authored the state law on sex education, mandating the teaching of sex education and AIDS prevention instruction in the Georgia schools. As you can imagine, it was a challenge in any school system. But in Georgia, that is a pretty, pretty tall order.

And we had to deal with essentially what my good friend, Mr. Smith from New Jersey, raises what I think is the fundamental question, but also presents the fundamental opportunity and how to move further.

One of my experiences in dealing with this issue was, and how do you deal with both of these—they are two separate entities. Sex education, you have got teenage pregnancy. But AIDS prevention begins to get another set of requirements to deal with. And you all have each expressed that.

And how do we deal with it in the context of reauthorizing this program, and yet, to respond to Ms. Gayle's concerns about we need to do more, and yours and everyone? How do we move forward with this, and yet address what I think are some fundamental concerns by members that were basically expressed by Mr. Smith?

And I had the opportunity of having to wrestle with that, because there were many, with sex education—abstinence only, that is it. Nothing else. Nothing else, abstinence only.

But then when I brought in the AIDS prevention instruction, everybody began to think and understand, ah. Because we are dealing with something that is happening after the cat is out of the bag. And it takes a different set of things here.

So my question is—one of the reasons, before I get to my question—we solved that problem by, of course, emphasizing abstinence only in the sex education. But when it got down to the AIDS prevention, we came up with this analysis, which I think goes to what Dr. Gayle was talking about when she mentioned the local, I can't remember exactly, but the local cultural differences and concerns.

And that is where I want to ask my first question and get a response from. How do we move forward in what I think is needed to have a greater expansion on the treatment of AIDS, when you know you have got 90 percent of the children with AIDS in one strategic area? That is obviously a preventive kind of measure that we have to move forward for. And there is something local going on there. There is something different there that touched on what Dr. Gayle is saying.

And I wondered, Dr. Gayle, if you could start by stressing, how do we reconcile the need to move beyond the abstinence only, to deal with the localization of the issue; the different cultural values? The point that Dr. Mukherjee was mentioning about the schools and the fees, that might not be the same elsewhere.

And is there something specific that you could recommend to us, and what we can include in this bill going forward, that would address the need that you see as doing more, but yet could give room to work with the concerns of, say, my colleague, Mr. Smith? Because in order for us to move forward on this, we have to come up

with something that we can work with the strain of thought that he is registering.

Dr. GAYLE. Thank you. It is a very complex set of issues. Let me start, and I am sure some of my colleagues will also have comments.

You know, I think this is an issue that we have wrestled with for a long time: How to make sure that we are looking at an inclusive process, and including the different aspects of this. And you know, again, I think we feel very strongly that there is probably less disagreement around what the right approaches are, and that it would be good to move past whether there is a single bullet that will have an impact on this epidemic.

I think we now know, after 25 years, that in fact it has to be a comprehensive approach; that it has to include prevention and treatment and care and support. That we need to, if we are going to have a long-term sustainable impact, that we have to prioritize prevention, all the while knowing that access to treating is critical for those who are already infected with HIV.

And if we look at what really drives people's risk factors and people's vulnerability for HIV, then we will be able to look at that in a way that takes into consideration localized needs.

It is true that different countries have different factors that may contribute. But I think if we give countries the flexibility to plan, based on their epidemiology, based on their cultural traditions, incorporating those in their response, that in fact we will have the best ability to have programs that are tailored to the need.

I just also want to touch on your issue of pediatric HIV infection. It is a critical issue. And even there, we recognize, as Dr. Daulaire said, that we can't just focus on a very narrow approach that says, "Get pills in mothers' mouths," without thinking about what are we going to do for the long-term impact of making children safe and improving child health. And we need to look at an integrated approach.

Ultimately, what is going to have the greatest impact on reducing the number of children born with HIV is reducing the number of women who get infected with HIV to begin with, and giving women choices who are HIV-infected, to be able to reduce their chances of getting pregnant if they choose not to. So integrating with family planning services is critical for allowing women who are HIV-infected to choose not to become pregnant, if that is their choice.

In addition, we have to continue to look at keeping women safe to begin with, so in fact fewer women contract HIV, and therefore are able to pass it on. So I think we have got to look at all of those factors, and continue to look at how do we allow countries the ability to make the choices that will serve their needs best.

Mr. SCOTT. Dr. Gayle, if I may just follow with one question, Mr. Chairman. What we did in Georgia when we ran across that, because we had to work both the conservative side, the liberal side, the moderate side, to come up with a conclusion. We were all happy with abstinence, as far as the sex education and the courses, and how we taught it, with peer influence and that sort of thing.

But when we got to the AIDS, we suggested, we came up with this compromise, that allow each local school system, in concert

with their parents, the PTA unit at that school, to determine whether the C word, condom, could be dealt with only in the area of AIDS prevention.

So my point is that, is there a recommendation that could be made, as we move forward with reauthorization of this, that we may want to come up with some kind of language in here that could give at least, maybe there is some formula. Maybe there is some level of attainment with the children. Maybe there is something there that could trigger and say if it is at this level or for this country, perhaps we allow that community of interest to determine for itself, given its values, as to whether we move with simply allowing the funds to flow with the condom use.

Dr. GAYLE. Yes, I think options like that have a lot of potential. When I was with the Centers for Disease Control, we actually could only provide resources to states if they, for HIV prevention, if they had community planning groups that worked along with the state health departments. It was a CDC requirement that the communities were involved. Materials had to meet local standards, et cetera. So I think that there are ways in which one could incorporate an inclusion of communities, so that community standards and norms were actually what were used.

And we have a lot of examples of how that is done in the United States, but also a lot of examples around the world, where the inclusion, the explicit inclusion of communities in planning the programs helps to make sure that programming is relevant to the community norms and cultural practices.

Dr. MUKHERJEE. And in Uganda, we did just that in 1994 and 1995. We asked the parents, and we worked with the PTA, just like you are saying in Georgia.

And my experience working all over the world is that no matter where you are, parents don't like to talk to their kids about sex. And they assume not talking is akin to the kids not doing it. And I think working with the parents to craft a message for children is completely reasonable wherever you are in the world.

Dr. DAULAIRE. Let me just bring this back for a moment to the specifics of the PEPFAR reauthorization.

What we are discussing here, I think, is really at the heart not of a debate between A and B and C; it is a debate between a medical approach, which says we will tell you what to do, and we will do it for you, and a developmental approach that says we will work with you to figure out the best solutions in your own context.

And that is I think one of the fundamental concerns that implementing groups have with a hard earmark. Because it takes that flexibility in terms of working with local communities out of play.

Now, I think all of us in development agree that culture is not destiny; and that, in fact, behavior change in sexual behavior is indeed feasible, and happens. But culture is also not just a speed bump. It is something that has to be understood; it is very contextual, as it was in Georgia, as you discussed.

And what is clear here is that we need to, through this legislation, provide the enabling conditions for that dialogue to take place to engage communities, particularly those at highest risk, and to coordinate and to fold prevention care treatment into primary settings as much as possible, and to bring in these larger social con-

texts. Because it is really, it is not about changing sexual behavior, it is about changing social behavior, of which sex is one manifestation.

Dr. HEARST. If I might just comment. When we talk about letting local people make the decision based on local situations, I mean, when you look at the successful Uganda example, as we have just heard, that is where it came from. It didn't come from Western experts coming in and telling the Ugandans to do it this way.

And unfortunately, what we Western experts have done far too often—and maybe that has gotten a little better in the last few years, I hope so—is we have gone in and told them condoms are the real solution. Condoms are the real AIDS prevention; all this other stuff is just nonsense. And that has been the model that has been followed in most African countries for the last 15 years. And that is certainly not because local Africans came up with condoms as, Oh, we have all sat down and thought about it, and decided condoms are the way to go. No, that is because the foreign experts came in and told them that.

And in fact, unfortunately, in Uganda, after their great success, there has been a bit of backsliding. And it is partly because some foreign experts have come in and told them, ah, this zero-grazing thing, well, maybe that was fine; but, you know, get with modern times. You are doing a terrible job. You don't have nearly as high condom-use rates as in successful places like Botswana and South Africa. And more and more of the resources went to condoms, and now we are starting to see HIV infection rates tick up a little bit in Uganda.

So I am a little worried when—I am all in favor of coming up with local solutions, because they are more likely to work. But you have to be very careful how you do that. And the local solution tends to be what the foreign experts and the local elite that has been trained in the United States and Europe goes back and have internalized.

So I think if we had real locally based solutions, we probably wouldn't need to worry about earmarks. Because what most Africans understand is that this epidemic is sexually driven, and they would tell you themselves that sexual behavior is what has to change.

Mr. SCOTT. So you are fine with that local; you see that as being very, very important. But what you are saying is that it needs to be, we need to have the program accentuated and grounded more with the A and the B, the abstinence and be faithful, and not allow the condoms or the local control to, or the local control to deemphasize the A and the B.

I agree with you on that. I think it is strong; I think you are absolutely right about the abstinence. I think you are absolutely right about the behavioral.

But I think that in terms of our policy here in getting something through or expanding this deal, I think we have to come up with language that can make sure those things are satisfied; that the concerns of, let us say my colleague from New Jersey, Mr. Smith, can be satisfied. Because they are my concerns, too. Because I agree, after going through this, if you can get them to stop it, don't

do it before time, and we can get that if we get it into elementary schools and we get it in there.

But let us face it: This is a biological clock that is going to go off at at least 12 or 13. I mean, that is natural, it is going to go there. And once they engage in sex, then there has to be another approach, as your approach. If you have got to do it, do it with one person. And hopefully, get married.

But when we are dealing with the primary problem, as what these ladies have pointed out, it is coming from these men. These old grown men that ought to know better. It is coming from these prostitutes. It is coming from those johns who do it. It is coming from all these other things. And when it is so persistent and rampant within that cultural there, that in one area 90 percent of the children of the world are AIDS here, clearly we have got to do this other third thing. And maybe the local control will do it.

So anyway, that is my thought on that. And I just agree with all four of you. And I think you are doing a wonderful job. And again, Mr. Chairman, I say to you that I am anxious to join you in your next trip to Africa, because this is the number-one health issue in the world. And if we don't move with it forthrightly and quickly, it is going to spread even greater. And we are the country to provide that leadership. It is our mandate to do that. It is our calling to do that.

And thank you all for this excellent hearing.

Mr. PAYNE. Thank you. Thank you very much for your interest and your passion.

I see Mr. Chabot.

Mr. CHABOT. Thank you, Mr. Chairman. I apologize for not being here for the testimony itself. I will certainly take the time to review the testimony of all the witnesses. I want to thank you for giving it.

My only, I guess, comment would be that I had the opportunity to visit an AIDS facility some years ago, in Kampala, Uganda. This was a number of years ago. And about 3 weeks ago I was on a codel with a couple other members, and we went to Darfur, and then we also went to Ethiopia. And one of the things we did in Ethiopia was to go to an HIV/AIDS program put on by, I believe it was Save the Children, just outside of Addis Aboba.

And it is really kind of heart-wrenching what you see there, to the extent that most of the kids were either HIV-positive and were orphans, or there was some connection that obviously put those particular children there at risk.

And one of the main things that they stressed was that even though the drugs, the cocktail, is now available in many places, if the nutrition is not up to standards, then you are really wasting your energy and money, and the people aren't going to survive anyway. So that has to be a key part of it, letting those children and families have adequate nutrition.

And there were clearly bags there saying that this was from the people of the United States, and it was good to, certainly to see that. And I just wondered if—and you may have already commented on this, and if so, I apologize—but does anybody want to comment on that aspect that the nutrition—yes. Both of you.

Dr. GAYLE. Yes, just briefly. We commented on this in our statement, and feel that the issue of food security is critical, both for prevention, as well as for people who are already infected with HIV. We know, and Dr. Mukherjee gave a very eloquent statement around how women, particularly poor women, often have to sell sex or exchange sex for food. Young girls, in order to get education and get their school fees paid for, often exchange sex in order to get adequate nutrition or education, et cetera. So we know that the issue of lack of stable source of food and food security does increase vulnerability to HIV.

We also know that people who don't have access to adequate nutrition and who are HIV-infected will sometimes use their money to buy food, as opposed to using it for their drug treatment, because the food is most essential. And that people who don't have adequate nutrition aren't going to be able to continue to comply with their anti-retroviral therapies.

So yes, we think that food security is a critical issue. And I think it just continues to point to one of our core issues, that unless you address these social and economic underlying factors, both for prevention and treatment, we are not going to have the long-term, sustainable impact that we want to have on the epidemic. So we do strongly agree that we have to integrate food security with these other issues, as well.

Dr. MUKHERJEE. Can I—I would like to add something specifically about children, which you asked, Mr. Scott, and also Mr. Chabot.

You know, I think that the food security issue is central to this, as is health system strengthening, which was the topic of my testimony. But I have heard a couple times today you can't treat your way out of this epidemic. And I am worried about that rhetoric.

It is because of the advocacy around treatment that we now have the opportunity to do all of these other things, like prevention. Many of us, I think at least the two here that I know well, Nils and Helene, we have been working in HIV since the beginning of the epidemic. And prevention was not enough to garner the kind of resources that we now have. The activism around treatment.

So the idea that you can't treat your way out of the epidemic, let us not get too caught up in that. We have the opportunity, because of this money, to do much more effective prevention.

One of the critical things in allowing people to use the messages of A, B, or C is knowing their status. But as my example showed you from our clinic in Haiti, people are not going to come and get tested if there is no availability of treatment, of primary healthcare.

Similarly, if we are going to invest this money in treatment, we have to make sure that people have adequate nutrition to meet their needs. Because otherwise they will succumb to other infections, particularly tuberculosis.

And then lastly, in terms of children, there is prevention and there is prevention. We have focused a lot of time in this hearing on the ABC issue. But there are two other parts of the prevention that are evidence-based, that are extremely important, that we have not even addressed. And one is the prevention of maternal-to-child transmission of HIV, which Nils pointed out is a known

therapy. It was the first important breakthrough in HIV in 1995. And 12 years later, we have less than 10 percent of pregnant women with HIV in Africa who know their status. Why? Because the health systems are broken. Because they have nowhere to come for prenatal care, for HIV testing.

It is not because people don't want the drugs. They are going to come if there is a health system that works. And that is why 90 percent of children with HIV are in Africa. The epidemic is there, and women are not accessing prevention services because they are not wrapped into comprehensive prenatal care. Women should not be delivering babies in their homes. It is bad for their life.

And so, and then the other evidence-based prevention that we haven't talked about is the detection and treatment of other sexually transmitted diseases. Again, why is this not happening? It is not happening because health systems don't work. Because people are not able to access the system that would allow them to treat diseases like syphilis, et cetera, that will decrease transmission of HIV.

And it is in those settings that you can do prevention. We do prevention in churches, in schools, in communities, et cetera. But also the prevention is tied to people knowing their status, to being able to access the health system, and to be able to have a place that they can go to when they are sick. And that is, Mr. Scott, why the children are still being born with HIV infection, because their mothers don't have access to primary healthcare.

Dr. DAULAIRE. I completely agree with Dr. Mukherjee. This is not a debate, at least in our community, about treatment versus prevention. That bus has left. And it is very clear that when done right, and with high quality—and again, I would urge that in the enabling legislation, that the quality of treatment care be highlighted, not just the numbers—that that actually can be and should be an enhancement for all of the prevention programs.

Clearly, the things that your committee needs to look at in terms of the legislation needs to be this issue of quality versus quantity. The issue of how to best increase prevention. And again, it is not a debate in our community any longer whether condoms versus A and B are the key things; they all have to be done in a systematic and coordinated way.

Third, following the Institute of Medicine recommendation, healthcare worker training; and with that, strengthening the health systems, as Dr. Mukherjee has said. That needs to be built into the legislation as a part of what PEPFAR takes an active role in.

And fifth, coordination across U.S. Government agencies, so that things such as food security and other issues that directly relate to the status of people living with HIV and at risk of HIV, are part of the fabric of this government's response.

Mr. PAYNE. Yes. Dr. Hearst.

Dr. HEARST. I don't have much to add. Just when I say we can't treat our way out of the epidemic, I in no way intend that to mean we shouldn't be doing treatment.

What I mean by it is that we shouldn't fool ourselves into thinking that treatment is in some way a substitute for prevention, or that it will necessarily result in prevention. There are ways that

it can be synergistic with prevention, as we have heard; people knowing their status, and helping them not to transmit to others.

But frankly, there are ways that it undercuts prevention. And my own research has shown this in gay men in places like Brazil, where treatment is rolled out, and people think, Oh, HIV is not so bad any more; it is a treatable disease. And they start backsliding on avoiding risky behavior. We have seen that in San Francisco. We have seen that in other places.

I am not saying because of that, we shouldn't provide treatment. We have to be extra careful that we don't in our own minds start thinking that somehow treatment is a substitute for prevention. No, we need both. We need them both very much. And we need to find ways to make them synergistic, and not interfering with each other, because there is that potential.

Mr. PAYNE. Mr. Smith?

Mr. SMITH OF NEW JERSEY. Thank you, Mr. Chairman. Before asking two final questions, I would just make one observation. And I appreciate the testimonies of all of our very distinguished witnesses here today, and for your work.

Last year, on May 25, I chaired—and you might recall, Mr. Chairman, because you were there—I chaired the African Global Human Rights International Ops Committee. We held a hearing on world hunger, and the crisis that we have. One of the major components of that hearing was the fact that, just like you or I, if we are on antibiotics and aren't taking sufficient amounts of food, it doesn't take long for that antibiotic to cause major-league stomach upset, in addition to perhaps not working as well as it could. Doubly so, triply so, how many times so for those that are on A or B. So that message was very clearly conveyed to us by our witnesses at that hearing.

We also had a safe blood hearing. I remember one of the WHO witnesses saying that 44 percent of maternal mortality could be ended if we had access to a safe, durable supply of blood. The donors, as it would turn out, should not be paid because, if they are, you are more likely to get people who will not provide safe blood. We would need to establish as best as possible a system whereby volunteers would come forward and the blood would be screened. I myself have been in a number of African hospitals where you open up the refrigerator, and there are very few pints of blood sitting there, waiting to be transferred.

So women, when they hemorrhage from a complication attributable to either the birthing of a child or some other maternal complication, just doesn't have access to that safe blood. So it is something that we have tried, Chaka Fattah has pressed USAID on this, I have pressed them. Mr. Chairman, you have, as well, believing so passionately that access to safe blood could save so many lives.

Even though it is a small amount that get AIDS in Africa from bad blood or tainted blood, safe blood is just not there.

One other observation, as well, is that in seeking balance—and I remember when we were writing this legislation, because I, like others, was very much involved with the drafting of it. Obviously, Chairman Hyde was the prime sponsor and the prime leader on that issue. But we all kind of forget that we provided 15 percent

of the funds for palliative care, 55 percent for treatment. Many of us have noted over the years that there was almost nothing going to help people treatment-wise, and this was a breath of fresh air for those suffering from the epidemic to be able to get these life-saving ARVs.

On the prevention side, 20 percent for prevention; 33 percent shall be expended for abstinence and being faithful. So it is a subset that we are talking about. And that was born out of a very real—and I appreciate Mr. Scott's statements earlier—a very real observation that many of us made, inside and outside of the administration, those on both sides of the aisle, that abstinence and being faithful really got short shrift over and over again.

I don't mind having a condom inclusion, but it needs balance. And again, especially for young people, if you get a mixed message and you get it from people in authority, you might take the path of least resistance and just use a condom.

And I take your point, Dr. Hearst, about the backsliding. I remember President Museveni being laughed at, frankly, by many in the international community. He stood firm, as did his wife, as did others in Uganda, and said the international community, we appreciate your help, but frankly, we want a locally based solution to this, and we want to save our countrymen and countrywomen by effectuating what turned out to be an ABC model, which has worked so very well.

Let me also say when it comes to the children, not brought out in this hearing, but I will never forget in Ethiopia, when I visited an orphanage for HIV-infected children. There were about 500 kids there. As I walked around, I must have had more kids holding onto my arms on both sides. And if it wasn't for the nuns' love and compassion, and fighting to get ARVs and other helps, which was a daily battle for them, those kids might have been dead, certainly very sick.

And yet they told me there are kids that they have to turn away for lack of capacity. So again, that percentage of balance of what we do with our HIV/AIDS money needs to be looked at very carefully, because those kids need help. And they also need help in the facilitation of adoptions when there are AIDS orphans. That means coming to the U.S. and going anywhere else where loving couples are waiting to adopt these very adoptable children, or making it work for them in a home with the grandmothers and others who very often are the greatest assistance in raising those children.

Finally, let me just ask two questions. First, Dr. Gayle, you mentioned in your recommendations that we remove arbitrary restrictions and you include the anti-prostitution pledge, as you call it.

Now, just a little bit of background. I am the one who sponsored that amendment to PEPFAR. It was born out of my work for at least 5 years prior to PEPFAR. It really actually began in the mid-1990s; it came to fruition with a hearing that I held right there in 1999, where we talked about the whole issue of sex trafficking, and the fact that, especially around the world, and here as well, it was exploding. The break-up of the Soviet Union, with the ease and availability of the Internet that moved women, and the fact that organized crime jumped in with both feet. All of a sudden we had a situation where women were being trafficked.

Well, the amendment basically said that the organization has to have an anti-prostitution, anti-sex trafficking pledge. But as you know, and as I think everyone knows, in implementing the ABC final rule that guides how we spend this money, the money is available for people who are involved with brothels, women who are so-called sex workers. It is available for sexually active discordant couples; we already know that.

But it is done in a way so that hopefully we don't have a partnering with brothels and with the sex traffickers, to the detriment of those women.

And your very next point, you say advancing an ABC-plus approach to address underlying vulnerabilities, you want to confront social norms that put women and girls at risk, as well as gender-based violence. It seems to me, I can't think of a worse gender-based violence on the face of the earth than sex trafficking, where women are raped every single day, and these victims that I have had testify at probably a dozen hearings right in this room, where we have heard women tell their stories; I have gone all over the world, to shelters; those women need rescuing, not enabling.

And again, that legislation, we thought we had balance. The model, in terms of money being disseminated by PEPFAR, can go to a woman in a brothel. But it doesn't go to an organization that says we think this sex worker deal is okay. What kind of retirement benefits do they have?

I watched a CNN piece recently. I was actually in Abuja when I watched it. I turned it on, and there it was, a half-hour piece. Very incisive piece.

And in it, the reporter from CNN went down the streets in Bombay, and was talking to all of these young girls. Every one of them would say I am 24, I am 23. Every one of them was about 12 or 13. And then they did a raid. The police let the women go—women; the young girls.

And when they talked to the Sex Workers Union in India, they said every one of them is above majority age; there is not a minor among them.

So I worry, and I worry deeply, if we don't at least have some line in the sand and say the organizations need to realize that prostitution and sex trafficking is an exploitation of women; it is not an ennobling profession.

The Court of Appeals for the U.S. District Court found in our favor that this language is permissible, and it actually comports with the goals of the PEPFAR legislation. So I am very distressed by that, frankly, because again, I have met so many women who have been trafficked. And frankly, women that I have met that have been in prostitution often have some dysfunction in their past. Usually it is an incest situation for many of them, and they are acting out their brokenness. And they need to be helped and loved, and brought out of that continuing exploitation. And it only helps the men who want to exploit these women.

So I would ask you to reconsider that. And I ask that very, very strongly. Please reconsider, because I think that is a major mistake which will unwittingly enable gender-based violence against women.

Secondly, and my other question—again, I would ask you to respond to that—Dr. Daulaire, you make a very good point about the child, the mother-to-child transmission issue about which we are not doing enough. You pointed out the bed nets and all the other things we need. And I couldn't agree more. We have had hearings on that, as you know, Mr. Chairman. Both you have had them and I have had them, about why we need to incorporate these aspects. If you get malaria, obviously then you are on another train to sickness, and maybe even death. So I agree with that.

But I was concerned when both you and Dr. Gayle say that we need to incorporate reproductive health services into that. And part of that is definition, and maybe you could tell me if I am wrong on this.

But when I see organizations, like last October, we are talking about IPPF, International Planned Parenthood, the Packard WHO, Family Health International, and a host of other groups holding a conference in Ethiopia, linking reproductive health, family planning, and HIV/AIDS in Africa. That sounds reasonable on its face, until you try to understand what they mean by reproductive health.

To many of us, it simply means abortion. Well, I open it up, and I read the report: It is abortion. They say it plainly in their report. That is what they are trying to pressure governments to do.

When I met with President Mellis, and before that his Minister of Justice, about a year and a half ago, to promote what you and I talk about, the killings that occurred on the streets of Addis, I asked how and where they got the language to change their abortion law. They told me a U.S. NGO wrote it for them.

So we are talking about local solutions, IPASS and IPPF, Equality Now and other groups are actively trying to impose, in my opinion, abortion on a traditional society that loves their unborn children, as well as their newborns. And then I look at some of the signers, and I see Dr. Cates with Family Health International.

In 1976—and I just say this parenthetically—he wrote a piece, and I have a copy of it, abortion is a treatment for unwanted pregnancy, the number-two sexually transmitted disease.

Pregnancy is not a disease. Unborn children are not parasitic life. And yet he treats it as if it is a disease. He is with Family Health International.

Human rights are for all, from womb to tomb. They don't start at birth; it is the beginning of life, much earlier than that, conception. Birth is an event in the life of a child after it has begun. This conference raises very serious, troubling red flags to people like myself.

So how do you define reproductive health? Is it abortion? Is that what you mean? They say it clearly in this conference. Is that your opinion as well?

Dr. GAYLE. I think that I will start with the first issue that you raised. And it is long and complicated, so let me just say, give kind of a simple answer. And we would be happy to provide further response to your question.

I think our concern is, I think I would say we would share your concern about the issue of gender violence, what has happened in

the case of particularly young girls who have been sold into commercial sex, et cetera.

I think that the issue of the pledge, though, doesn't address those. And I think what the concern of many organizations has been is that what happens, in terms of ability to work with organizations that work with commercial sex workers, has been hampered by this. And so it is really the application of the pledge versus whether or not organizations—and I think most of us would say we don't feel that commercial sex is the best option for women's economic viability. But we also do accept the reality for women, particularly poor women. Sometimes that is the only option available to them, and we want to be able to work with commercial sex workers to reduce their risk of HIV infection, all the while recognizing that the risks that women put themselves in in the sex trade are not positive.

Mr. SMITH OF NEW JERSEY. Would the gentlelady yield, just very briefly? I think that is where we differ. I don't think that it is an option, no matter how desperate.

I mean, I wrote two micro-credit laws. I believe desperately and passionately in the need for economic empowerment, which is why I did the two micro-credit laws. The Trafficking Victims Protection Act was my bill. It was a totally bipartisan bill, but I took the lead on it.

It is not ennobling. It hurts women. It is just like allowing these men, as Mr. Scott and others talked about, who are abusing these young girls. We can't——

Dr. GAYLE. No, by no means am I saying that this is a good option. The reality is——

Mr. SMITH OF NEW JERSEY. It should not be an option.

Dr. GAYLE. The reality for many women, is that it is the only option they have to put food on their children's plates. And commercial sex is an option that people take, and they are therefore at great risk for HIV. And we want to be able to continue to reduce their risk of HIV, understanding that the long-term consequences of commercial sex have their own set of risks. So we recognize that.

Mr. SMITH OF NEW JERSEY. I understand that. But——

Dr. GAYLE. We also recognize that operationalizing that pledge has many times driven a wedge between our ability to work with the very group at greatest risk. So that is our concern. By no means—and we have gone on record, as have most NGOs gone on record, saying that we do not support prostitution. And we are comfortable making that statement.

Mr. SMITH OF NEW JERSEY. But the very groups that brought suit refused to sign it. They are affiliated with and have connections or links with some of the groups, like Adam and Eve, which is involved with a lot of sexual paraphernalia.

But the emergency plan makes it clear, makes it clear that they can provide sex workers, as they call them——

Dr. GAYLE. Right. All I can say is that we are on record as opposing prostitution. We believe that that is the correct position.

On the other hand, we don't want language that in fact drives a wedge——

Mr. SMITH OF NEW JERSEY. It is also sex trafficking, as well.

Dr. GAYLE [continuing]. Drives a wedge. And we, of course, would agree with that, as well. But we don't want language that in fact drives a wedge between us and the ability to in fact reduce women's risk of contracting a deadly disease. I think that is where we feel that operationalizing that pledge has not been beneficial to being able to reduce women's risk of contracting HIV.

On the other issue, for us, when we talk about reproductive health, what we are talking about is linking women who are HIV-infected with the ability to have access to family planning. And in that case we are talking about whether it is pills, whether it is diaphragms, whatever is the best locally available option for women who are HIV-infected, who do not want to continue getting pregnant, which, you know, the data all show that women who have one HIV-infected child are very likely to have another one. So we want those women to have the option to avoid pregnancy if they are HIV-infected. So linking them with family planning services is what we were addressing in our paper.

Mr. SMITH OF NEW JERSEY. But do you define reproductive health as abortion?

Dr. GAYLE. In our paper, what we were talking about was linking women with whatever range of family planning services are legal and safe, within their country context. We are not advocating for any particular method. We recommend and support a country's decision to put their own standards on what reproductive health services are available in their country context.

So our recommendation is, in fact, to link people with their country's family planning services. We don't prescribe what those services are. Countries have the right to choose what their range of reproductive health services are. Ours is linking women with those services; it is not supporting any particular strategy.

Mr. SMITH OF NEW JERSEY. But you know as well as I, and I appreciate the indulgence of the chairman, that many of these conferences are put on by foreign NGOs, United States based and European based. And they bring an agenda. And that agenda, time and time and time again, and I read much of it, is abortion.

So it is not like it is a locally indigenous clamor for abortion. It is very much manipulated by foreign NGOs. And this conference is just one example of many——

Dr. GAYLE. I can't speak to the conference. Our point was that women who are HIV-infected should have the option to have access to family planning, and be able to make decisions about whether or not they want to get pregnant, knowing their HIV status.

Mr. SMITH OF NEW JERSEY. I understand.

Dr. GAYLE. You know, I would just again say that we do believe that countries and professionals within those countries have the ability to make safe decisions, make sound decisions. And I think we are past the point where a foreigner can parachute in and dictate to countries. I don't believe that we so overwhelm people's best thinking because we have foreigners involved. I think we are past that. I think we have, throughout the world, very bright professionals in the countries where we are working. They can make up their own mind. They can choose the methods that they think are best for their own cultural circumstances, for their own country's circumstance.

And you know, I think the thinking that we are so overwhelming people's decisions, I think is just not true any more. I think that you will find bright, well-educated professionals in these countries that will go toe-to-toe with any of us on being able to decide what is best for their own populations.

Mr. SMITH OF NEW JERSEY. Before going to—do you describe reproductive health as abortion? Is it included in the definition?

Dr. GAYLE. In our statement, we are not advocating any particular methods. What we are advocating is that women who are HIV-infected have access to family planning services, the family planning services that are available in their countries. It is not a statement about one method or another, nor is it a statement about what is available in any given country context. It is a statement that women should have access to family planning. HIV-infected women should have the option of practicing family planning and avoiding pregnancy if, in fact, that is their choice.

Dr. DAULAIRE. Congressman Smith, I know that we have had this conversation for probably over a dozen years back at various points. And I know there is a tendency, particularly in a political environment, to ascribe certain meanings to certain code words. And I know that reproductive health services have come to be a flashpoint on that.

In my testimony, as submitted, I think I was clear, but in case I was not, I will restate what I thought was clear. Which is that an access point for women to get HIV testing, an excellent access point is in family planning clinics and places where they can get reproductive health services.

Did I mean places where they should go for abortions? No. But is the reality that in some countries, that abortion is included among those services? Yes, it is true. Relatively few countries.

But I was talking about family planning, I was talking about treatment, diagnosis and treatment of sexually transmitted infections, I was talking about services that deal with female genital cutting and mutilation and so forth.

Do I believe that abortion is an appropriate treatment for HIV? No. It is not something that I or our members would recommend.

Now, as you recognized, the Global Health Council is a big-tent membership organization. We have members, individuals, professionals, as well as organizations, who are pro-life; we have members who are pro-choice. And we have actually been able to engage a constructive dialogue on common issues, where we can all work together. So the Global Health Council doesn't take a position one way or another on this very heated subject, but believe that this is a matter for national decision making, not something that either external NGOs or external governments ought to be imposing on countries.

There is a rich debate and dialogue going on in many places, and we feel that countries should decide.

Mr. PAYNE. Mr. Fortenberry?

Mr. FORTENBERRY. Thank you all again for coming, and for your testimony today.

There is a lot here. May I ask a simple question? We have Uganda, we have Botswana. Lowest incidence of transmission, highest

incidence of transmission. What are the distinctions in the countries?

Dr. MUKHERJEE. It is not a simple question, and you know that. And I don't think actually it is a question of highest incidence, lowest incidence. Because in fact, Uganda was the epicenter of the epidemic in the early nineties.

And many things that Uganda did allowed that rate to come down. And I think Mr. Smith mentioned President Museveni. But when I was working in Uganda, President Museveni appeared on many occasions with a condom on the end of a pen, giving lectures, trying to give the population all of the avenues they could have to prevent HIV.

And I think the thing that should be really noted, and I think Dr. Daulaire pointed this out, is an enormous, enormous amount of resources went into Uganda for prevention at the time. Because there was no, they were the only game in town. There wasn't an HIV epidemic raging throughout the continent, as there is now; and Southern Africa hadn't even yet been hit by the epidemic.

What is special about Botswana? I don't think anyone knows. There are academics at my institution, at Harvard, that think it is the type of virus. I disagree. There are people that think it is sexual practices, cultural practices; I disagree.

My personal opinion, what I tell my students at Harvard Medical School is if you want to understand the AIDS epidemic in Southern Africa, particularly in South Africa, but this applies to Botswana, Namibia, Lesotho, Swaziland, read the book *Cry, the Beloved Country*, which was written in 1948, by Alan Paton long before there was an HIV epidemic. And what it describes was the way Black labor was set up under apartheid; the way the mining economy robs Black men of the ability to live with their families.

And in fact, it was apartheid legislation set out in 1948 that said that Black men could not have settled labor. They could not bring their wives and their children to live in the mines with them.

What does that say? I think there is a lot of—I mean, I am a woman, obviously, but I think there is a lot of male blaming that goes on in the HIV epidemic. If men had the ability to have local choice of economic viability to support their families, I think they would take that.

I worked in a country, Lesotho, where at any given point more than 80 percent of the people attending clinics are women. The men work in the mines of South Africa. There are no economic opportunities for them in Lesotho.

So I think we have to think about this as a social context. You know, there are mining companies that are making a lot of money off of Black labor. And men are not allowed to bring their families. There are no settlements. And some of these companies even bus in prostitutes to make these men happy.

Whose fault is that? If you are making less than $1 a day, and you are living 10 hours from your family, and the bus ride is going to cost 6 months of your wages, how often are you going to be able to see your wife for a conjugal visit? And I think this is the reality in Southern Africa. The epidemic has been fueled by a mining economy, by extraction of Black labor on the backs of poor people who really have no economic option.

And I really think that Uganda has been progressive in dealing with their AIDS epidemic in many, many ways. But they had a lot of help, and they had a very broad-based strategy that included abstinence, fidelity, condoms; but also included the international community's focus on that one country at that time.

Dr. GAYLE. I would just add also that if you look at the recent trends in Botswana, the rates are starting to come down. So I think, in the same period of time that Uganda was able to see a response, Botswana is now also seeing that same sort of response, using a comprehensive approach. But the epidemic in Botswana occurred more recently than the one in Uganda.

So I think if you look at the two, in fact, there are similarities, and the rates of infection in Botswana are starting to come down.

Dr. HEARST. Well, just to say that, although I agree with some of the things said, there is a little bit of people wanting to look at everything but the obvious cause. And Botswana is the poster child of an African country that is, by African standards, not poor; that has spent far more per capita on prevention than was ever spent in Uganda in the early days. In fact, the whole zero-grazing campaign was done on a shoestring because there weren't many foreign donors there at the time, which is probably why they did it right, because there weren't all those foreign experts.

And Botswana has done everything the West has told them to do. And it didn't work. And yes, their rates have now plateaued. You know, they couldn't go up to 100 percent. They have plateaued at absolutely horrendously high rates.

Rates did go down in Uganda dramatically, and we are starting to see, it is not just Uganda, we are starting to see rates go down in parts of Kenya, parts of Zimbabwe. And every one of those places where infection rates are going down, we are seeing changes in sexual behavior, by our own DHS surveys, which our Government supports, as what has to happen first.

So people seem sometimes just not to want to acknowledge what is right in front of them. I don't know, but I think it is pretty clear. You can just go to those countries. You know, you go to Botswana, and you see all the obituaries in the newspaper, but they never say the cause of death of all these young people. Whereas in Uganda, you get in a taxi, and the taxi driver, when they find out you are there working on AIDS, has a million very cogent questions for you.

It is a local response that has dealt with reality in Uganda that has worked.

Mr. FORTENBERRY. Thank you. And let me say, Dr. Gayle, in your testimony earlier, you said a phrase that I think was very powerful, that I think should cause scandal to us all: Survival sex. And I pulled that out of all that could be said. Because look, yes, socio-economic contexts are important in this overall question. And the scandal that someone would have to turn, in order to survive, to the most degrading types of activity to feed their child or to feed themselves again should prick the conscience of the entire world.

And so I appreciate the enlarging, or the augmenting of the discussion to the larger social context, I do.

I do think, though, that, as Dr. Hearst points out, we need to be clearly understanding of what the evidence is before us, when this

harder thing to do is actually engaged, to talk about self-dignity, self-worth, preservation of this most precious gift of one's sexuality that can be used for great good or great harm has got to be an integral component, a decided emphasis, as we talked about earlier. Or else we are not living up to the standard I think the American people would want us to set with their tax dollars, in our approach in trying to be compassionate and saving lives of the world's most needy people.

So anyway, I will leave it at that. Thank you again for this discussion.

Mr. PAYNE. Thank you very much. Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chairman. I have a couple of points, but I must react to Dr. Mukherjee's comments, because I think you nailed where we need to go. I mean, there needs to be a greater leeway, I think, as we move forward in this reauthorization, to emphasize the distinct community differences. The historical context that you gave of the impact on the African male certainly has to be a part of this equation. And I just wanted to let you know you were right on target with that, and I think that gives ample reason of where we have got to go, really.

And I think we can get there without the abortion concerns that are there. And it is something that if we move forward in doing some of the things we want to do, we have got to find a way to give those assurances to the American people that——

Mr. PAYNE. That is another hearing.

Mr. SCOTT [continuing]. Their concerns about taxpayers' dollars using for that is not, you know, one having worked with that issue, and have made grounds on it, I think we can do that.

But let me ask this of each of you first, very quickly. Do you feel that we could do a better job, and would you recommend that the funding for this program be exclusive for HIV/AIDS? I mean, we are here talking about the reauthorization of this act, and it is a multiple-disease act, bringing in tuberculosis and malaria. But yet, neither of those was even mentioned today, which gives some indication as to the seriousness and the overwhelming of HIV/AIDS.

So there is a question out there that I would like to have your response to. Do you think, would you agree? Should we change this? Should we make it just deal exclusively with HIV/AIDS? And then, if that be the case, how would we make up for the deemphasis, or where would we go to deal with malaria and TB?

Dr. GAYLE. Well, I think that clearly HIV is an unprecedented public health challenge, and we need resources that are focused on HIV and AIDS. We also need resources that allow us to effectively deal with malaria and tuberculosis.

And as Dr. Daulaire said, I think we really need to make sure that we look at global health in a more comprehensive way. Because, while we have increased our funding on HIV, we have not continued to keep pace with other core issues, like child health and maternal health.

So I think we have the ability to really look at a more comprehensive global health approach.

For HIV, however, I think there is a need to have a real focus. And the things that we are talking about, we are not saying that we should solve all the problems of poverty through an HIV spend-

ing plan; but really, if we are going to have an impact on HIV, we have to look at these other factors that so influence prevention and treatment for HIV, and that we have to look at it in a comprehensive way.

The focus is still HIV, but it is looking at what is going to be most effective. And what is going to be the best way to have a sustainable response. So we think it needs to be integrated with the focus still being on what is our impact on HIV and AIDS, on preventing HIV, on getting people treated and providing care and support for those with HIV and children affected by the epidemic.

Mr. SCOTT. So you would go on the side of saying that it should be exclusively devoted to the HIV and AIDS.

Dr. GAYLE. I think that the focus should be on HIV. That doesn't mean that we should be neglecting the other diseases that are part of the overall package.

Dr. MUKHERJEE. Yes, I would say that it is important to keep the focus on HIV. But I would strongly add tuberculosis.

Tuberculosis and HIV are essentially one disease in most of the developing world. Fifty percent of all mortality with HIV is related to tuberculosis. And many children who are born to HIV-positive parents, even if the child themselves is not infected with HIV, will succumb to tuberculosis, because the parents have tuberculosis. And it is very difficult to detect tuberculosis in children.

I think there has been such a focus on numbers of patients in HIV treatment, rather than the comprehensive HIV program. And to me, we can still look at health systems strengthening. If we are going to do enough HIV tests, if we are going to find pregnant women with HIV and provide them with therapy, we have to have that health system strengthened.

You know, I think that tuberculosis programs and integrating testing for HIV within tuberculosis programs, and vice-versa; that everyone with HIV should be screened for tuberculosis. Again, these diseases go absolutely hand-in-hand, and I think we should have more leeway for that.

Dr. DAULAIRE. Mr. Scott, as I said in my testimony, I do not think that we should limit ourselves to a narrow view of just HIV, and I would not recommend that the new PEPFAR authorization be exclusively and narrowly restricted to HIV.

I think it is very appropriate to have it be the predominant focus. But, as I have laid out, and as we have heard elsewhere, there are so many interactive issues. And because the level of resources for PEPFAR is such an order of magnitude greater than it is from U.S. sources for other global health activities, it is going to be essential at times to be able to support ancillary kinds of programs that are directly pertinent to improving the health of people with HIV in their communities.

Dr. HEARST. Well, I guess you are asking a panel of HIV/AIDS experts, so maybe we are biased. And maybe because I spent so many years working with HIV/AIDS, I think it is terribly important, so I am reluctant to have the funding for it be used for other things, as well.

But on the other hand, malaria and TB are very important, as well. And I suppose if they received anywhere near the funding that they need and deserve, no one would even consider why one

would have to tie them in with HIV funding. So it is sort of a sad commentary that that seems to be the only way they have gotten any attention.

Mr. SCOTT. I would like to just ask again, as we look at the reauthorization of this, it would be good for us to know from each of you what recommendations, what changes; what would you like to see added, if each could add one thing that you would like to see added as we move forward to reauthorization, what would that be that is not there now?

Dr. DAULAIRE. I went through a list earlier, and I will repeat it, because we have had a lot of discussions with the Global AIDS Roundtable and the HIV Implementing Group to discuss this.

Prevention should be increased. There should be a greater focus on——

Mr. SCOTT. When you say prevention must be increased, are you——

Dr. DAULAIRE. A higher level of resources going to prevention.

Mr. SCOTT. Okay.

Dr. DAULAIRE. Secondly, the focus on quantity of treatment, number of people under treatment, needs to be balanced out also by markers of the quality of treatment.

Third, healthcare worker training needs to be a part of PEPFAR, because it is turning out to be the critical constraint; and up until this point, to a considerable extent, it has sort of been somebody else's problem.

Fourth, as Dr. Mukherjee has made a clear statement about health systems strengthening, the broad systems that serve not only HIV programming, but other health programs, that you can only do in a systematic way need to be a part. And they should probably be an entirely new section of the PEPFAR bill.

And fifth, there should be stronger language requiring and enabling coordination across U.S. Government agencies.

Mr. SCOTT. Okay, fine. Thank you. Ms. Gayle.

Dr. GAYLE. I would agree with those, and again, the increased focus on prevention. The way the spending ratios are now structured, it does tilt the spending in favor of treatment, and we think that prevention should be prioritized in the next round.

Mr. SCOTT. Could you tell us what that ratio is now? That would be helpful. And what you would like to see the ratio be?

Dr. GAYLE. I believe it is 50 percent on treatment. I don't have an exact ratio; I think in any disease, the tendency to focus more on treatment over the long run is there. It is a lot more visible to treat people who are already infected. I think focusing on prevention, in the long run, is going to have the most sustainable impact.

So I think we would just like to look at those ratios, and look at how we could increase and have a higher priority for prevention. Again, we're not getting into a debate of prevention or treatment, because it needs to be a comprehensive response.

Mr. SCOTT. May I just ask you one thing on the prevention? When you say an increase on prevention, and I think I picked up from, I think, both of you, Dr. Gayle, and Dr. Mukherjee, that the area where prevention can be increased the quickest, and where we need to concentrate and impact, is in the area of mother-to-child

transmission. Could you tell us how we could improve that area of prevention?

Dr. GAYLE. I guess I would disagree that PMTCT is where we need to put our highest focus, on reducing mother-to-child transmission. PMTCT is a smaller proportion of all new infections.

I think the point that Dr. Mukherjee was making was that PMTCT is something that we have an incredibly effective intervention for, and still only about 10 percent of women who could benefit from that intervention have access. And so it is something that we could scale up very rapidly, and have a huge impact on reducing the number of children who are born with HIV.

That said, it is a small part of the overall epidemic. And the real driver is women who get infected to begin with. And I would argue that the greater focus ought to be on reducing the spread of HIV in women, who are now increasingly disproportionately impacted with HIV. We could decrease the number of new infections dramatically, and we would also decrease the number of children who are born with HIV by really focusing on women.

So our second point is, in fact, having a greater focus on women, and making sure that the strategies that are included allow us to look at the drivers, the underlying causes, the issues that put women at risk and increase their vulnerability to begin with; and therefore, look at it from much more of a development standpoint that includes the social and economic factors that put women at risk to begin with.

So those would be our main points. This greater integration of social and economic factors, looking at the issues that increase women's vulnerability to poverty, and increasing the focus on prevention.

Mr. SCOTT. Okay, thank you.

Dr. MUKHERJEE. I have to say that the idea of increasing money spent on prevention personally makes me nervous, because I think it is almost impossible to measure the efficacy of prevention, because you really have to look at the landscape over time: 5 years, 10 years, 20 years. And also because it is very hard to measure new infection.

I think that prevention is very, very important, but I don't mythologize prevention. I think we have to have communities that are engaged in prevention, and that can be done through anything that brings people together, whether it is a church, a school, you know, a health clinic, et cetera.

And so I personally think that we have to focus on outcomes of integration of these services. I think there has been a lot of focus on targets of people on HIV medicines, and I think that is okay. But we still should be looking at the number of people who engage in primary healthcare, who are getting HIV tested. And those numbers should be, we should have, you know, for every hundred patients that are tested, we should 5 percent that are positive, or 25 percent if the case is Lesotho versus Haiti. We should be using it as a screening test, so that when people are in their prevention programs, they know their status, and that those messages can be helpful for them to protect themselves and others.

And I would like to see ways to integrate, so say that this money is actually improving health systems. This isn't being dropped in

for an HIV intervention; that it is actually allowing people to get tested, allowing pregnant women to get tested, allowing children to be tested. And also allowing us to detect tuberculosis and treat tuberculosis so that people, you know, who have that disease won't die, and also spread it to others.

So I think that if we can look at ways of having this money be integrated in improving health systems, and integrated into ways that prevention can be more successful. I think putting, you know, half money treatment, half money prevention, we should look at what are the desired outcomes.

The desired outcomes is to lower the overall death rate from HIV, to lower the overall prevalence globally of HIV. All of those things are going to take time. But are there process indicators that we can look at that say this money is actually providing people services they need to protect themselves against HIV? Or, if they are infected, protect themselves against death from HIV.

Mr. PAYNE. Okay. Dr. Hearst?

Dr. HEARST. Yes, thank you. I would agree with a lot of the recommendations so far, and just want to follow on a couple of the things that have come up.

Fortunately, we are talking about a growing pie, as I understand that the question is how much it is going to grow. So I would also think we should put more of an emphasis on prevention. But fortunately, that ought to be possible, while still letting treatment efforts grow, as well, even though perhaps a little less proportionately.

I think the point was made of it being difficult to measure the impact of prevention measures. And you know, part of the problem frankly with PEPFAR is that it has been difficult to measure because we haven't tried to measure it. In fact, PEPFAR, the way it is set up, has been interpreted as prohibiting measuring it. There is no money, not only no money for academic research; there is no money for what might be called operations research, or even for what you might call decent program evaluation. And we need to have better information and know what is working for prevention.

On treatment, we know what works. You can count the number of people on treatment. For example, we may know that this program is going out to a certain number of primary school children, but is it really having an impact on when they start becoming sexually active? We know X number of condoms were shipped, but how many people are really using condoms consistently, and are they the people who are the ones who are at highest risk?

These things are measurable. It is not that hard to do, but it won't be measured if we don't try to measure it. Are we affecting the B if we are trying to get people to reduce their number of partners? What are trends in number of partners? You can set things up so that you, for example, roll out new programs one district at a time, and you can measure their impact. And we haven't been doing a good job of that in PEPFAR at all.

Mr. SCOTT. Dr. Hearst, if I may ask you this question.

Mr. PAYNE. Mr. Scott, we have to be out of here.

Mr. SCOTT. One small question?

Mr. PAYNE. We are invaded already by folks trying to get in. They have to have this room cleared and ready for the new group.

Mr. SCOTT. 30 seconds.

Mr. PAYNE. All right, 15.

Mr. SCOTT. 15 seconds. How do we address the B, be faithful, while at the same time addressing the point that Dr. Mukherjee said about the circumstances economically in this region, where men, huge numbers of men, are asked to go away from there? Be faithful, it is a standard of six, 7 months at work in the mines.

Is there an application for that in your—and I am with you on the be faithful and the changing of behavior. But how do you deal with that? Is there something we can do with that?

Dr. HEARST. Well, I don't have a 30-second solution to that, but you absolutely have to look at—it is not just a matter of preaching at people; you have got to give them a reality-based option for what they can be doing instead.

Mr. PAYNE. Thank you very much. We would like to even know how we can actually evaluate abstinence and faithful programs. You know, there is very little research done on which ones are working, and where, but we don't have time to ask that question. I am sure some of you have some ideas on it.

But let me just thank the panel again. This has been very, very helpful, as we could certainly even go on further and all. We have a lot of work to do. You have to remember that back in 1980, when HIV and AIDS first came, was first detected, 1979, $50,000 was allocated for it. That was national, international; it was something no one wanted to deal with, no one wanted to be bothered with.

And actually, believe it or not, Secretary of State, at that time, Colin Powell, was going to announce $250 million that the U.S. was going to have as a pledge when the HIV/AIDS question first came up. And we certainly had a discussion about, you really weren't serious about that was what the administration was going to do.

And it was really the help from the evangelical community that got the ear of the President and talked about primarily ARVs. It was really the mother-to-child transmission that caught the attention of the evangelical community. And that was the community that really changed the focus, because the White House abolished the Office on HIV and AIDS that was in the White House under the Clinton administration was abolished.

However, thank God for the evangelical community that came forth and said we have got to stop this mother-to-child transmission. They were very pro-life people. And that started the ball rolling in the White House, to where we saw a quantum leap in the fact that this was something that had to be done.

And so the prevention went on. There was really no interest in trying to do treatment. And I think one of the, unfortunately for a gentleman who was going for the USAID job said, you know, well, Africans can't tell time, so he was told well, we can't spend money on treatment, so he came up with a very illogical statement, which he certainly had indicated that he was sorry that he made such a statement. But it was because no one wanted to get involved in treatment, it was too expensive, you know.

But we are in a new day. I have to certainly commend President Bush and the Congress for accepting the $15 billion that he recommended. Hopefully we will be able to do the $30 billion, but I might have to put a $20 billion rider to satisfy our good friend. We

need to fund TB, the MDX and XDRs, no question. There is funding for malaria. And so if we can increase the funding for those, maybe we can indirectly get the $50 billion, and we will move forward.

But let me thank all of you for this very important hearing. We do have, for the record, we received a written statement from the Center for Health and Gender Equity, and it will be included in the record without opposition.

[The information referred to follows:]

STATEMENT SUBMITTED FOR THE RECORD BY SERRA SIPPEL, ACTING EXECUTIVE DIRECTOR FOR THE CENTER FOR HEALTH AND GENDER EQUITY (CHANGE)

Chairman Lantos, distinguished Members of the House Committee on Foreign Affairs, and Committee Staff, first let me thank you for holding this hearing on such an important matter. The Center for Health and Gender Equity is a U.S.-based nongovernmental organization focused on the effects of U.S. international policies on the health and rights of women and girls in developing countries. We believe that every individual has the right to the basic information, technologies and services needed to make informed choices about their sexual and reproductive health. On behalf of the Center for Health and Gender Equity, I am pleased to provide this testimony regarding the direction of the President's Emergency Plan for AIDS Relief as we move forward with reauthorization in 2008.

The President's Emergency Plan for AIDS Relief is about to reach its 5-year mark. As we reflect on the inception of this monumental effort, it is necessary to assess how far we have come and how far we have to go. HIV/AIDS is a pandemic that is ravaging female communities across the globe and in this next phase of PEPFAR the United States has the opportunity to establish comprehensive and integrated HIV prevention strategies that address the specific vulnerabilities of women and girls in each country receiving U.S. assistance to combat HIV/AIDS.

Today, 80 percent of HIV infections are sexually transmitted. Women represent more than 50 percent of those infected with HIV worldwide. In sub-Saharan Africa alone, women account for 60% of those living with the virus, and 76% of people aged 15–24 who are living with the virus are female. Additionally, 500,000 women die each year from pregnancy-related complications, and 200 million women have an unmet contraceptive need. *High rates of illness and death related to sex and reproduction are rooted in the stark gender disparities that characterize women's lives throughout much of the world.* These include lack of access to education, income, property, and other productive resources, and social, legal and cultural norms that limit women's control over sex and reproduction, and contribute to high rates of violence against women and girls.

In order to adequately address this bourgeoning epidemic among women, PEPFAR must position itself to integrate services like reproductive health, family planning, and HIV/AIDS. This integration will create opportunities for PEPFAR to expand its impact in target countries by moving PEPFAR-funded programming toward comprehensive prevention, care, and treatment of women and girls to reduce their vulnerabilities to HIV infection.

INTEGRATION ASSISTS PEPFAR IN MEETING GOALS AND TARGETS

Integration of reproductive health interventions with HIV prevention and treatment interventions is a key component to meeting the goals of PEPFAR and provides an avenue to ensure long-term success in the global fight against HIV/AIDS. Not only would integration of programs help prevent and reduce HIV infections among women and girls, but it would also help prevent HIV transmission from mother to child and support HIV-positive women's reproductive rights and fertility choices. Reproductive health and HIV/AIDS services are generally funded and operate separately. Therefore, clients in need of both services must see different providers for each service. This is extremely problematic for women and girls living in resource-poor countries. Integrated programming further promotes and expands access to HIV/AIDS services, while also helping to address broader public health issues like the shortage of healthcare workers.

Providing both reproductive health and HIV services together, as well as addressing the social and economic factors that put women at risk of violence and make them vulnerable to HIV infection, would not only better serve both providers and clients, but would also create a more comprehensive, cost-effective, and efficient way of providing the services.

INTEGRATION ASSISTS PEPFAR IN ADDRESSING GENDER ISSUES

The Office of the Global AIDS Coordinator (OGAC) has continuously articulated an increased commitment to reach women and girls with prevention, care, and treatment services. Both reproductive health/family planning and HIV service areas share the same audience. This is especially true in countries with high incidence among women and girls of reproductive age. Through integration of these services, PEPFAR could increase access to programs and services for women and girls vulnerable to HIV/AIDS, while helping ensure overall sexual and reproductive health. Integrated programming would also help to reduce the stigma associated with attending stand-alone HIV/AIDS service points and negotiating condom use in a relationship. If PEPFAR is indeed moving toward a model for sustainability, it makes sense to integrate reproductive health and HIV/AIDS services. This claim is even stronger considering the commitment of OGAC to address gender issues under PEPFAR programming.

With reauthorization, PEPFAR needs to further prioritize women and girls and clear targets must be developed to reduce the rates of HIV infection among this population. Resources need to be targeted to end violence, sexual coercion, trafficking, stigma and discrimination. Through appropriate training, health professionals specializing in integrated programs with family planning and HIV/AIDS should also be trained to screen for violence and coercion. This model will make for an even more comprehensive model addressing the special circumstances of women impacted by HIV/AIDS.

INTEGRATION WILL ASSIST IN LINKING CONTRACEPTIVE USE AND HIV PREVENTION

More than 200 million women in the developing world lack access to modern contraceptives. Satisfying this unmet need will have an important impact on HIV outcomes. Increasing funding for contraceptives, including both male and female condom procurement and support programs required to ensure their effective and consistent use, would dramatically affect the prevalence of HIV/AIDS in PEPFAR countries. Also, research and development of new prevention technologies, like microbicides, is critical and holds great promise in stemming the HIV/AIDS pandemic.

Contraceptive scale-up can offer women resources that will help them prevent mother to child transmission of HIV/AIDS, while also assisting in other family planning/reproductive health needs. In order to reduce HIV-infected births, infant and child mortality, children orphaned by HIV/AIDS, and maternal mortality, integrating family planning and reproductive health with prevention of mother-to-child transmission and antiretroviral therapy/treatment programs makes sense. Both HIV positive and HIV negative women in PMTCT programs should receive access to contraception, including appropriate counseling in order to make informed choices about their reproductive health. This should include counseling about contraceptive use as well as negotiation for safer sex.

INTEGRATION AS A MEANS FOR SUSTAINABILITY

The United States Government has taken important steps in order to move PEPFAR toward sustainability. However, more must be done in order to create incentives for PEPFAR teams to support innovative integration mechanisms and approaches. In order to develop models for truly comprehensive programs PEPFAR must include broader determinants of vulnerability in its strategies to address the HIV/AIDS pandemic among women and girls. Integrating services like family planning and gender-based violence screening into HIV/AIDS services is a start.

Information must also be disseminated outlining the appropriate implementation of integrated programs to PEPFAR teams and partners. Thus far, PEPFAR programs have fallen short of addressing the linkages between HIV and reproductive health, while also avoiding the promotion of reproductive health as a part of HIV prevention. Funding restrictions like the Mexico City Policya policy mandating that no U.S. family planning funding can be provided to any foreign nongovernmental organization that uses its own, non-US funds to provide abortion-related counseling, information or services—has only undermined PEPFAR's ability to offer comprehensive approaches to HIV prevention programming due to a lack of precise implementation and guidance and has also harmed efforts to integrate services due to an over-interpretation of the application of the policy. A repeal of the Mexico City Policy would ensure integrated programs under PEPFAR are effective and reach those most in need of services.

A growing body of evidence supports the integration of HIV services with family planning and reproductive health services. We are hopeful that Congress and the Of-

fice of the Global AIDS Coordinator will take heed to this evidence and work with us in moving PEPFAR toward a true model for sustainability. Integration will aid in expanding access to much-needed treatment, care and prevention services to women who need them the most, while also efficiently using health professionals and health systems in a manner that is the most cost-effective. Lastly, integration will contribute to a long-term, sustainable model that broadly addresses HIV/AIDS amongst one of the most vulnerable and hardest hit populations impacted by the pandemic.

The Center for Health and Gender Equity asks that you consider our testimony as you deliberate over the reauthorization of the President's Emergency Plan for AIDS Relief in the coming months. Should you have any questions or comments, feel free to contact me or Jamila Taylor, Legislative and Policy Analyst, The Center for Health and Gender Equity, 6930 Carroll Avenue, Suite 910, Takoma Park, MD 20912; (301) 270–1182; jtaylor@genderhealth.org. Thank you very much.

Mr. PAYNE. Once again, thank you all very much. This was extremely helpful and very interesting. Thank you very much.

The meeting is now adjourned.

[Whereupon, at 1:50 p.m., the committee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE SHEILA JACKSON LEE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. Chairman, thank you for convening today's important hearing. It is estimated that HIV/AIDS, tuberculosis (TB), and malaria together kill more than 6 million people each year. In January 2003, President Bush announced the President's Emergency Plan for AIDS Relief, or PEPFAR. As its name implies, PEPFAR was envisioned as an emergency response; we are here today to discuss how to transition to a sustainable program to address these global epidemics. May I take this opportunity to thank the Committee's ranking member, and to welcome our four distinguished witnesses: Helene Gayle, MD, MPH, President and CEO, CARE, USA; Joia Stapleton Mukherjee, MD, MPH, Medical Director, Partners In Health and Assistant Professor of Medicine, Harvard University; Nils Daulaire, MD, MPH. President and CEO, Global Health Council; and Norman Hearst, MD, MPH, Professor of Family and Community Medicine and of Epidemiology and Biostatistics . University of California, San Francisco (UCSF), School of Medicine. I look forward to your testimony.

Seventeen years after the first cases were diagnosed, AIDS remains the most relentless and indiscriminate killer of our time, with 39.5 million people worldwide now living with HIV or AIDS. Despite pouring billions and billions of private and federal dollars into drug research and development to treat and "manage" infections, HIV strains persist as a global health threat by virtue of their complex life cycle and mutation rates. 24.7 million of those infected, or about 63%, live in Sub-Saharan Africa, a region with just 11% of the world's population. 61% of those infected in this region are women. Though Africa, and even more specifically African women, bears the brunt of the AIDS pandemic, Americans should be reminded that HIV/AIDS does not discriminate, with well over a million people in our own country currently living with HIV or AIDS.

Tragically, 6% of the 39.5 million people currently infected with HIV/AIDS are children under 15 years of age. In 2006, the virus killed 380,000 children (13% of all HIV/AIDS deaths), and 90% of all children living with HIV reside in sub-Saharan Africa. According to UNAIDS statistics from 2005, 1,500 children worldwide became newly infected with HIV every singly day, due largely to inadequate access to drugs that prevent the transmission of HIV from mother to child. Only 8% of pregnant women in low- and middle-income countries were offered services to prevent HIV transmission to their newborns.

Mr. Chairman, HIV/AIDS continues to represent a serious and large-scale challenge throughout much of the world. It goes far beyond a simple health problem, and it hinders attempts to foster economic development and political stability. As we begin the process of reauthorizing PEPFAR, I believe it is crucial that we emphasize the long-term sustainability of our HIV efforts, and that we integrate AIDS prevention and treatment within our larger-scale development initiatives.

Though we have drugs that are effective in managing infections and reducing mortality by slowing the progression to AIDS in an individual, they do little to reduce disease prevalence and prevent new infections. For this reason, there is growing consensus among health experts that we must put greater emphasis on prevention programs, which are perhaps the most critical aspect of any initiative to combat global HIV/AIDS. Even as increasing numbers of people have access to antiretroviral drugs (ARVs), an estimated 5.1 million people who needed treatment did not receive it in 2006. In sub-Saharan Africa, the percentage of individuals needing treatment who actually received it rose substantially, from 2% in 2003 to 28% in 2006. This growth is impressive, and represents a significant step forward, but it

also means that 72% of sub-Saharan Africans requiring treatment did not receive it.

Mr. Chairman, despite our concerted efforts, we continue to face a serious and persistent health threat. I believe that it is imperative that we ensure that American taxpayer dollars are used to greatest effect, not to bolster ideology. Current restrictions on PEPFAR mandating that 1/3 of all prevention funds must be used on abstinence-only education neglect the real needs of populations both in America and abroad. These stipulations hurt the ability of PEPFAR to adapt its activities in accordance with local HIV transmission patterns, and they impair efforts to coordinate with national health plans. Though AIDS is clearly a global problem, it does not affect every nation equally or in the same manner. Removing these stipulations would allow PEPFAR to better address the requirements of each country, making more efficient and effective use of taxpayer dollars in serving the millions affected by this disease.

In addition, I believe it is crucial that we dedicate greater attention to strengthening local health infrastructure. Health experts have expressed concern that the high amount of spending directed toward HIV/AIDS initiatives has drawn health workers away from public health facilities and other important programs. This merely compounds a chronic shortage of qualified health workers, which, according to WHO's 2006 World Health Report, is the single most important health issue facing countries today. This need is felt particularly sharply in Southeast Asia and sub-Saharan Africa.

Many health experts also continue to advocate greater integration between PEPFAR and other health programs, including those focused on nutrition, maternal and child heath, and other infectious diseases. These experts note that HIV is intricately linked to these other areas of concern; for example, malnutrition and lack of food may heighten exposure to HIV, raise the likelihood of engaging in risky behavior, increase susceptibility to infection, and complicate efforts to provide antiretroviral (ARV) medication. Further, an HIV epidemic will likely worsen food insecurity, by depleting the agricultural workforce. I believe it is necessary, to ensure maximum effectiveness, that we integrate PEPFAR with other aspects of our international health outreach and development programs.

Mr. Chairman, if we are to turn the tide of turmoil and tragedy that HIV/AIDS causes to millions around the world, and hundreds of thousands right here in our backyard, it is imperative that we continue to fund and expand medical research and education and outreach programs. However, the only cure we currently have for HIV/AIDS is prevention. While we must continue efforts to develop advanced treatment options, it is crucial that those efforts are accompanied by dramatic increases in public health education and prevention measures. Investments in education, research and outreach programs continue to be a crucial part of tackling and eliminating this devastating disease.

As Americans, we have a strong history, through science and innovation, of detecting, conquering and defeating many illnesses. We must and we will continue to fight HIV/AIDS until the battle is won.

Thank you, Mr. Chairman. I yield back the balance of my time.

PREPARED STATEMENT OF THE HONORABLE CHRISTOPHER H. SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Thank you, Mr. Chairman, for calling this timely hearing in anticipation of the reauthorization of the President's Emergency Plan for AIDS Relief. In the short four years of its existence, PEPFAR has transformed the nature of this pandemic. In 2003, HIV/AIDS was a ravaging death sentence that was destroying individuals, families and entire communities. Now, it is an ongoing crisis that, while still to be feared, can be restrained if it is addressed through sufficient resources and appropriate, evidence-based policies.

Although anti-retroviral treatment has been pivotal in slowing the tide of the pandemic, we cannot rely on ARVs as the centerpiece of a sustainable program. As we will hear during today's testimony, for every person who is placed on ARVs, there are six new infections. So we must focus our efforts on learning what has worked up to now in reducing the prevalence rates of HIV/AIDS and concentrate our resources on expanding those successful strategies.

Prior to PEPFAR and the implementation of the 33 percent prevention spending requirement on abstinence and be faithful programs, almost no one—USAID included—even considered devoting resources to these measures. I am told that some USAID personnel in the field even laughed at the idea of abstinence training when PEPFAR was first being implemented. Most—if not all—of HIV/AIDS prevention

programming consisted of condom marketing and distribution. Yet as we will hear from our distinguished witness Dr. Norman Hearst, the condom approach did not work in countries where the pandemic is spread among the general population and which constitute the majority of the world's infections.

The PEPFAR comprehensive, evidence-based approach adopted the successful ABC model that originated in Uganda, and the success of reducing HIV prevalence rates through sexual behavioral change is being replicated in other PEPFAR focus countries. This approach is showing other positive outcomes as well. For example, a PEPFAR-funded program at Chibelo Basic School in Zambia emphasizes abstinence as part of a holistic, lifeskills training program. Since the program was implemented two years ago, the number of pregnancies among the 520 school girls (grades 5–9) has dropped from 13 in 2003–2004 to zero so far this year. School management also attributes the program with significantly enhancing academic performance.

I have been deeply disturbed by the insinuations of some that sexual behavioral change is not possible for Africans. Fr. Thomas Williams, in a May 17, 2007 article in the National Review, notes that he has spoken to numerous Africans who find the Western supposition that "they're going to do it anyway" to be not only insulting, but racist. He notes that "prejudice against Africans with no self-discipline or control over the sex drive simmers just beneath the surface of much anti-abstinence propaganda."

On the other hand, the question is appropriately raised as to why those who consider themselves "experts" are refusing to accept the evidence about the success of behavioral change, and if they do accept the evidence, why are they opposed to the AB spending requirement. With the spending requirement, the United States is the only major international donor providing substantial support to this proven prevention strategy. Without it, we are faced with the specter of returning to a failed condoms—centric approach—and to the devastating loss of human life of the pre-PEPFAR era.

Finally, I am deeply concerned that some pro-abortion NGOs are attempting to hijack PEPFAR and other noble initiatives to promote the slaughter of unborn children in Africa and around the world.

Pro-abortion groups are using HIV/AIDS funding as a trojan horse to facilitate policies that reduce unborn children to expendable commodities.

Abortion methods are violence against children.

Dismembering a baby with sharp knives or chemically poisoning a child with drugs and toxic chemicals can never be construed as benign or compassionate—it is child abuse.

WRITTEN RESPONSE FROM NORMAN HEARST, M.D., MPH, PROFESSOR OF FAMILY AND COMMUNITY MEDICINE AND OF EPIDEMIOLOGY AND BIOSTATISTICS, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF), SCHOOL OF MEDICINE, TO QUESTIONS SUBMITTED FOR THE RECORD BY THE HONORABLE CHRISTOPHER H. SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Questions:

- There was conflicting testimony during the course of the hearing as to the prevalence of HIV/AIDS in the poor as opposed to wealthy segments of any given population. What evidence are you aware of with respect to this question in Sub-Saharan Africa and other PEPFAR focus countries?
- According to your research, does the treatment of STI's reduce the transmission rate of HIV/AIDS?
- To what extent does prostitution contribute to the spread of the HIV/AIDS pandemic in Sub-Saharan Africa?
- Please address any other issues that were raised during the course of the hearing with respect to HIV/AIDS prevention that you deem necessary to clarify.

Response:

As indicated by your questions, the Committee did indeed receive conflicting testimony on a few key points. At least one other witness endorsed the common but erroneous belief that HIV infection rates are higher among the poor in countries with generalized HIV epidemics. This is simply not true in Sub-Saharan Africa, where most PEPFAR priority countries are located.

I attach a recent commentary published in *The Lancet* by James Shelton of USAID and colleagues. They present clear evidence that HIV infection rates are positively associated with wealth in most Sub-Saharan countries with generalized

epidemics rather than being higher among the poor. They discuss possible explanations for this as well as the consequences of widespread confusion about this matter, including among many people who consider themselves to be AIDS "experts." I will be happy to provide additional evidence about this if desired.

Similarly, one of the panelists repeated the outdated belief that treating STI's is an effective strategy for reducing HIV transmission in generalized epidemics. In fact, there have now been six large randomized trials to test this hypothesis. Five of the six showed that treating STI's produced no reduction in HIV infection rates. So while treating STI's is certainly important in its own right, it can no longer be considered a public health strategy for AIDS prevention.

In addition, more than one of the panelists greatly exaggerated the importance of commercial and transactional sex in spreading HIV in Sub-Saharan Africa. Stories of girls trading sex for school fees have been repeated over and over. While this no doubt happens sometimes, quantitative epidemiologic studies consistently show that this situation and the "sugar daddy" phenomenon are much less common in Africa than commonly supposed. Commercial sex accounts for only a small proportion of HIV transmission in countries with generalized epidemics.

The question here is not whether poverty alleviation, treating STI's, and improving the status of women are important. Of course they are. The question is whether they are where we should put our limited AIDS prevention dollars. This decision needs to be based on evidence of effectiveness, not facile sociologic arguments. Are there credible scientific studies showing proof that poverty alleviation programs reduce HIV transmission? There are none. Are there specific examples of programs to improve the status of women that resulted in reduced rates of HIV? There are none. Are there randomized controlled trials showing that treating STI's reduces HIV transmission? There is one, but there are five others that showed no such effect.

PEPFAR must instead put its money into strategies that have been proven to be effective. The most notable of these was the home-grown Ugandan "Zero Grazing" approach. When Ugandans decided to tackle their AIDS problem head on in the late 1980's, they did not say, "We must alleviate poverty before we can control AIDS," or "We must improve the status of women before we can fight AIDS." Instead, they took a common sense approach based on the knowledge that HIV is sexually transmitted. They mobilized all sectors of society to get people to change their sexual behavior, and they succeeded with little outside help and very limited funding.

PEPFAR has been a leader among international AIDS prevention programs by truly putting its money into ABC and not just giving it lip service while spending most of its prevention budget on other things. It would be foolish to change this without clear evidence that other approaches are more effective, not just emotional arguments that would divert energy and funding in unproven directions.

Let me once again thank you for the opportunity to testify to the Committee and to respond to these questions.

Is poverty or wealth at the root of HIV?

Poverty and lack of economic opportunity are commonly cited as important contributors to the AIDS epidemic. Indeed an essay in *The Lancet* last year asked whether poverty reduction was the only sustainable solution to preventing AIDS.[1] Thus recent findings from the Tanzania 2003–04 HIV/AIDS indicator survey may come as a surprise.[2] The evidence is just the opposite (figure). This nationally representative survey measured wealth in terms of physical characteristics of the household and household possessions. Household wealth is strongly positively related to HIV prevalence. Indeed the difference in prevalence for women between the lowest and highest wealth quintile is four-fold. These findings are similar to those reported for Kenya[3] last year. Notably, HIV prevalence is highest in some of the most economically advanced countries in Africa (eg, South Africa, Botswana). A positive relation between wealth and HIV risk has been noted before,[4] but has been upstaged by the focus on poverty.[1]

The poor, especially women, are vulnerable to sexual exploitation. So why this strong relation in the opposite direction? Part of the reason must be that household wealth relates to urban residence, and HIV is higher in urban areas. Also, HIV prevalence is partly a function of survival, and wealthier people with HIV probably survive somewhat longer. On the other hand, people with HIV

eventually tend to lose wealth because of loss of employment and increased expenses related to disease, thus blunting a positive relation between wealth and HIV. Perhaps wealth simply enables people and especially men to have more sexual partners. However, in Tanzania neither number of partners nor sex with a prostitute in the past 12 months were related to HIV prevalence in men. Thus none of these explanations appear adequate to explain the observed wealth–HIV relation.

Another explanation seems crucially important—the role of established concurrent sexual partnerships in generalised heterosexual epidemics.[5] According to this idea, serial monogamy and sporadic one-off sexual encounters might not contribute as much to new infections as networks of longer-term concurrent or overlapping partnerships. For example, a person may have a primary relationship, and an additional stable secondary relationship in another town. The primary partner might have no other partner, but the secondary partner might have one or more concurrent partners, and thus link to a larger network. Even though the average number of partners per person may not be especially high, HIV risk is. Once one person in a network characterised by concurrent partnerships has HIV, everyone becomes at high risk, both because more people are more often exposed to the virus and because recently infected individuals have many-fold higher viral loads and are much more infectious.

Wealth is the key for such networks, because wealth is associated with the mobility, time, and resources to maintain concurrent partnerships. Clearly such relationships might often have a strong economic element, but poverty itself may not be a major factor. Similarly, wealth and social interaction are inextricably linked, and wealth might increase the number of opportunities for partnerships to develop.

It is interesting that in both Tanzania and Kenya the positive relation between HIV and wealth is if anything stronger for women. We tend to think of men using their economic means to achieve more partners, and better-off wives may be infected by their better-off husbands. But it appears women to some extent also have concurrent relationships.[2] Indeed a concurrent heterosexual network must include both men and women. Perhaps wealth allows for such behaviour in women as well, in part by increasing mobility and social interaction. Or women might improve their economic situation by having more than one concurrent partner. In any case it appears that paradoxically both wealth and economic disadvantage (or at least desire for economic advancement) play pivotal roles in HIV transmission.

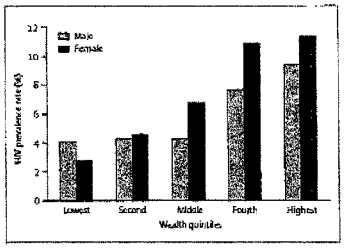


Figure: Sex differences in HIV prevalence rates by wealth quintiles (Tanzania, 2003–04)

What does this relationship mean for HIV programmes? First, it calls for increased attention to the economic dynamic of sexual risk in a wide variety of HIV interventions including behaviour change, condom promotion, voluntary counselling and testing, treatment, and support. But perhaps even more importantly, as described by Halperin and Epstein,[5] it reinforces the importance of promoting social norms to foster fidelity and specifically supporting a franker discussion and understanding of the dangers of having overlapping sexual partnerships.

James D Shelton, Michael M Cassell, Jacob Adetunji
Bureau for Global Health, United States Agency for International Development, Washington DC 20523, USA
JShelton@USAID.GOV

Our views do not necessarily reflect those of USAID, and we declare that we have no conflict of interest.

1 Fenton L. Preventing HIV/AIDS through poverty reduction: the only sustainable solution? Lancet 2004; 364: 1186–87.
2 Tanzania Commission for AIDS (TACAIDS), National Bureau of Statistics (NBS), and ORC Macro. Tanzania HIV/AIDS Indicator Survey 2003–04. Calverton, Maryland: TACAIDS, NBS and ORC Macro, 2005: http://www.measuredhs.com/pubs/pdf.cfm?ID=496 (accessed April 22, 2005).
3 Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], ORC Macro. 2004. Kenya demographic and health survey 2003. Calverton, Maryland: CBS, MOH, and ORC Macro, 2003: http://www.measuredhs.com/pubs/pdf.cfm?ID=482 (accessed April 22, 2005).
4 Halperin DT, Allen A. Is poverty the root cause of African AIDS? AIDS Anal Afr 2000; 10: 1–15.
5 Halperin DT, Epstein H. Concurrent sexual partnerships help explain Africa's high HIV prevalence: implications for prevention. Lancet 2004; 364: 4–6.